Writing

A First Book for College Students

By

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WRITING

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By

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PREFACE

This book is designed to create in the first course in College English the conditions which evoke that form of mental activity which naturally eventuates in good writing. It provides a fundamental course in composition, filling a half year, which conducts the student *once* through the entire process of writing an essay of three to five thousand words. The situation developed is essentially that of any investigator who looks forward to presenting the result of his work in a piece of extended composition.

With the advice of his instructor each student selects, explores, and defines his own subject. He makes a bibliography, reads, observes, takes notes, and organizes his information and ideas concerning that subject. He seeks to understand his audience, composed of the members of his English class, plans the presentation of his material for this public, and delivers it in a final manuscript correct in all essential details. When he has once traversed with deliberate intent and thoroughness the ground covered by each step in such a piece of writing, the act of composition no longer seems strange to him. Henceforth he

should be able to write with sufficient competence anything he is likely under normal circumstances to be asked to write.

According to this procedure, a student is not required to write a series of short themes on a number of unrelated subjects, a requirement which frequently confirms and even leads to habits of hasty, perfunctory, and superficial work. He gets abundant practice in writing, nevertheless, through the preparation of notes, abstracts, reports, the rough draft, and the final copy of his article. He is not asked to study a book of essays on a variety of topics which he is seldom able profitably to discuss. Instead, he reads widely and thoroughly on a topic about which he is curious, and which he has chosen independently for its own sake. Above all, he is not compelled at every step to concern himself primarily with the avoidance of errors. He learns to correct mistakes at the end of the process of composition, the point at which consideration of such matters naturally occurs.

The method is not an experiment. Under the direction of the authors it has been pursued with students of different types, both men and women, registered in liberal arts, in pre-professional courses, and in science, engineering, and business. Nearly twenty years ago it was inaugurated in principle in Barnard College by Professor Charles Sears Baldwin; and in

many other institutions a movement in the same direction has long been apparent.

Nor has the scheme of instruction thus provided been found either too difficult for the average freshman, or too burdensome for the instructor. The students have been interested in their subjects. This interest has stimulated activity and released unexpected powers even in those who have been inadequately prepared. Insistence that writing be directed at the class rather than at the instructor has invariably awakened a spirit of emulation. Moreover, rigorous attention to perfection of detail in the finished manuscript has been far more effective in teaching correctness than the custom of blue-penciling mistakes throughout the term. The variety of subjects in every class, the progressive development of each student's problem, the relief from the tedium of revising the endlessly repeated faults of endlessly repeated, monotonous, ill-conceived, immature, and unwillingly composed themes—all this has been found to lighten the task of the instructor and to free him for constructive and friendly counsel, for the actual teaching of composition.

Ray Palmer Baker
William Haller

New York

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WRITING—A FIRST BOOK
FOR COLLEGE STUDENTS

CHAPTER I

GETTING STARTED

I

This book is intended to give you an opportunity to put your knowledge of English to a particular practical use. All your life you have been learning to speak, to read and to write. You have studied the use of words, the construction of sentences, the composition of paragraphs. Why should you have to study those things again? The time has come for you to do something with this knowledge, something more and something different.

When we use language, we do not, as a rule, think about it. We do not consciously consider pronunciation, spelling, grammar, composition or any such matters. Language is the common servant of our daily needs, and we take it for granted. We also take it very much for granted when it serves as the instrument by which we find out what we wish to know, by which we think, and by which we try to convey what we know and think to other people in such a way that they may understand and be affected exactly as we intend. In order that you may learn to use English in this way,

you will be told in this book how to write from three to five thousand words on a subject of interest to yourself which you have yourself chosen.

You will spend several months on this piece of writing, because, as a beginner, you cannot in less time adequately perform all the steps by which the writer advances from the selection of his subject to the investigation of his material, the organization of his ideas, the understanding of his public, the planning and composing of what he is to write, and its presentation in a manuscript ready for publication. You cannot safely omit or hurry any of these steps. You must go through them all, one after another. When you have once found a subject, decided what to write and for whom to write, worked out your article, and handed over final copy in a form convenient to be read, you will have demonstrated that you have a reliable command of your native language. You will have written, not as a schoolboy writes, but precisely as a person who wishes people to read and understand what he has to say about the subject he knows.

With almost any bit of writing that is really worth while, what starts the writer is curiosity. He has in mind some subject concerning which he knows just enough to want to know a great deal more. To find such a subject should not in your case prove difficult. Curiosity is probably one of the chief reasons why you have come to college. You are curious about the world

you live in, about other people and other times, perhaps about yourself, what you are going to do and how you are going to do it. You are not content with being told. You wish to see with your own eyes, to find out what you can do. If this is not the case, you are going to have a stupid time. Alma Mater may be said to meet you at the campus gate with the command, "Be curious or be bored."

College is a delicate and complicated tool for the discovery and cultivation of curiosity. It is not a pill which you take in the belief that it will educate you, nor a show where you hope to be entertained. It is a tool to do things with if you can. If you learn to use it effectively, you may expect to enjoy the exercise of your skill better than almost anything you ever enjoyed before. Something in the world there must be which you would like to find out, something which you would like to do. What that something is, you may not at this moment be able to tell, or even if you can, you may not be sure of having the power or the opportunity. But something—be it writing plays or building radios or designing clothes or running a printing press or what not—something there must be, which you are curious about. If this were a matter of sport, you would try out various games, track or tennis or baseball, until you found the one that suited you. In the same way you should now try out the subjects that may interest you. Especially do you need to try

out yourself to be sure of your interests. College lets you do this trying out, so that among all intellectual games, you may find that one which is best suited for you and which you can do best.

Imagining the game you would like to play is not the same as playing but only the first step in learning to play. If you decide to be a historian or an engineer, you will have much to do before you are expert in your subject, and you will have to do more than just stuff your mind with information. You must learn not merely facts but functions, not merely what but how. You can learn something about swimming by sitting on the bank and listening to swimmers, but you cannot master what you have learned without getting into the water. College gives you the chance to practise being the kind of person you think you might like to be, chemist, social worker, politician, author, governor or bank president. A very important kind of practice, because what you do in practice you may presently do in earnest. College is a playing field where you may try all sorts of games, and your instructors are coaches who will put you through the training which will enable you to shoot a basket or kick a goal when it is important for you to do so.

College provides facilities for sorting out your interests so that you may save the waste motion of false starts. It provides machinery by which you may find out what has already been done and discovered so that

you will not lose time duplicating the efforts of others. It provides experts to show you processes that have proved useful, in order that you should not have to learn everything by the slow method of trial and error. College enables you to make calculated mistakes—that is to say experiments—with minimum danger. Make mistakes elsewhere, and you may get yourself fired from the job or blown up or bankrupted. Make mistakes in college, and you may learn from them how to avoid others.

College is, therefore, a kind of curiosity disposal plant. It matters little what you are curious about so long as you are curious. Let it be gas engines or games of chance or majolica or plant-breeding or Greek drama or chromosomes or juvenile delinquency or what you will. No matter how fantastic or hum-drum your taste may be, your business now is to be promptly and energetically curious about it. Follow up that taste as though fame and fortune were at stake, as indeed they may be. Don't shilly-shally. Don't nibble at the job like a half-hearted amateur. Work at it like a full-fledged professional.

Here is where your course in composition should come in. It is a means by which you can follow out in a definite way a particular taste and discover whether you are really interested in it. The business of satisfying and directing curiosity to useful ends is no simple affair, whether in college or out. You cannot be

actively curious about many things at once. You must select something to begin on. You must also expect to change your mind from time to time. You may think that you want to be a mining engineer, and you may turn out to be a poet. After you decide which direction your curiosity is to take, you will discover much still to be done, risks to be endured, tasks to be performed, bills of one sort or another to be paid. To be sure, you may be another Columbus, and have the luck to find a queen to give you a ship with which to look for the route to India you are so curious about, but you cannot count on any such good fortune. You may be able to work out something in the back room of your bicycle shop, but among bicycle mechanics of twenty years ago not many turned out to be Wrights. The school of experience is a good school, but it is uncertain and often wasteful. College is not so much better as it is less hazardous and less expensive.

Your English instructor is primarily an expert in the operation of the machinery of college as a means to the discovery and development of your personal curiosities. Not that he will necessarily know about gas engines or Chinese art, but he will know how you can find out about such things if you wish. Consult him, therefore, about your tastes, interests and ambitions. But remember that the responsibility of getting what he has to give rests upon you. He is under no compulsion to give it. He does not even know what

you can learn, or how you should go about learning it, because he does not know *you.* Your first business is to supply him with all the facts about yourself which will be of use to him in starting you as soon as possible at the kind of work which is most interesting to you. If you were ill, you would tell your physician truthfully all you knew about your condition. You are far from ill, but it is hardly less to your interest at this point to give your instructor an accurate and complete statement of your "case."

What have you been doing all your life? What do you *know*—really know at first hand? Where have you been? What do you like? What on earth do you want? What would you do in college if you could in any way contrive to do it? If you can give the right information about yourself, your instructor can save you time and trouble. But the first move is yours. You alone can supply the information your instructor can use for your benefit.

You may wonder what all this has to do with writing. Well, you write in order to communicate with others, and you cannot communicate unless you have something to say. If you are to write effectively, you must have something which you really want to say to someone in particular. You do not talk in order to show off your pronunciation, though when you talk it is well to pronounce your words in a fashion that will be agreeable to your hearers. You do not write in order

to exhibit your grammar and punctuation, though when you write it is well to build sentences and punctuate them in the way which your readers can most conveniently comprehend. Some people write because they are naturally fond of manipulating words, as others are fond of manipulating sounds and colors. But if you are like most people, you write only when you have something to say about a particular matter to a particular person. You want him to understand in order that he may enter precisely into your thought and feeling concerning your subject, and respond in a certain way. Often you hope to induce him to act in a way that will be immediately useful to you. For this reason you try to put on paper what you have to say in a fashion that will be considerate, polite, convenient and agreeable to the person whom you ask to make the effort to read what you have written. You do not wish him to be struck by your bad manners instead of by your good ideas.

With the aid of your instructor, therefore, find a subject concerning which you wish to know something for your own pleasure and profit. After you have found it, use the machinery of curiosity, the libraries, laboratories, museums, courses of study, experts and other facilities which college affords so that you can come to know your subject as thoroughly as time and energy permit. You will next work out your ideas about what you have learned. When you have done

that, you will be supplied with an experimental public on which to try out the communication of your ideas about your subject in such a way as to elicit the response that you intend. If necessary, you will be informed incidentally how to present what you have to say in the form which custom has made convenient.

Throughout this process your instructor will be not only your critic but also your coach. His business is not so much to judge as to train you. Do not fancy that he is a peculiar sort of person with a passion for rules of correctness which are important to him and a few like him and to no one else. You are not expected to manufacture for him certain artificial combinations of words in conformity to certain arbitrary rules, in the hope that he will give you a passing mark but with the expectation that he will read with a lynx eye for mistakes, which he will correct, more or less maliciously, on your behalf. Your instructor is not a cat set to catch mice, nor a machine for chopping up themes that you did not really want to write, and that nobody wants to read. He does not run a laundry for washing out your blunders. Above all he is not a person with a private prejudice in favor of certain ways of using commas and semi-colons and a special privilege to persecute for a time those who do not share his idiosyncrasies. He is none of these things. He is a trainer appointed to show you how to play one of the most useful, necessary and fascinating of intellectual

games. His business is to coach you, not in order that he may enjoy your discomfiture but in order that you may learn.

But the first move, which is your move, is to find a subject, to discover something about which you can have something to say. Your instructor will help you to begin the search, and the way to secure his help is to get ready to lay before him the essential facts concerning the aptitudes, tastes and curiosities which have brought you to college.

Set out immediately to use college for the cultivation of your own tastes and curiosities.

II

The most convenient way for you to assemble and present to your instructor the facts which he will need to know about you will be to write them out. This means that, for your first bit of writing, the subject is *yourself*. The first thing you have to do with the subject is to make sure that you have clearly in mind all the facts relating to it. In order to make sure, you should assemble every scrap of information which in any way bears upon the questions: What do I want to know? What do I want to do?

There is no general rule for getting at such facts. You must work out your own method. Moreover, there are no particular facts which you and everyone

else must necessarily produce. Nevertheless, you may find it useful in this connection to ask yourself certain specific questions. Where have you lived? What have been the activities of your family? Where have you gone to school? What have you studied? What were you required to read? What subjects of study did you like or dislike? What subjects are you taking in college? Why are you taking them?

Schools, lessons and books, however, by no means tell the whole story. They may have been the most interesting things in life to you, or they may have been somewhat of a bore. What have you done outside of school? Have you ever gone away from home? Have you ever run away from home? Have you ever traveled? Where and how did you go? What have you ever read for the fun of it? Did you ever neglect your school work in order to read something more interesting to you? Did you ever read anything you were not supposed or at least not expected to read?

Did you ever have a paying job? Have you ever seen the inside of any industry, business or profession, say farming, a steel plant, a doctor's office or a department store? Have you ever of your own free will made anything such as a radio or a ship model, a poem or a picture? Have you any taste or hobby which nobody of your acquaintance shares or for which you may be regarded as peculiar, such as an interest in snakes, in designing theatrical scenery, in clay modeling or in

tropical diseases? Have you ever collected anything, stamps, butterflies, books or pictures? Is there any useful or interesting thing in the world you would like to do regardless of parents or teachers, marks or money?

Have you come to college because in your family or town or school that is the thing to do? Or have you come, perhaps in spite of difficulty, because you wish to learn some science or art, business or profession? What would you do if you were not in college? What would you do if you were entirely free to do anything you like?

If you wish to choose your way intelligently among the opportunities of college, you must answer some such questions concerning yourself. Not every question of this sort will be important to you. Not all information on any subject is equally important. The important thing in any case is to ask enough questions to get the information that will enable you to select what you need for your purposes.

As you assemble this information, set it down on paper. Set it down in any way that appears convenient. At this stage, you need not take time to put your material into finished or correct shape. Think of *what* you are doing, not *how*. Think of your subject, not of the spelling, sentence structure or style. Let those matters take care of themselves. They will get enough attention later on. Catch your rabbit before you worry

about the best way of dressing it. You are writing now for your own convenience. You are writing to see what you have that can be used for your purpose when you regularly address your reader.

But do not conceal from your instructor what you have done. The assembling of material is as important a part of writing as preparing the final copy. Therefore let your instructor, who is training you in the whole business of writing, see what you have done, no matter what mistakes you think you have made. Let him, so to speak, look over your shoulder as you work in order that he may give you all the useful hints he can as to the best way to work. He may point out possibilities in your material which had not occurred to you. He may start you on something of the greatest interest which you had not thought that you could do or the college would give you a chance to do. He may show you ways of working which will save you time and effort. He may even now give you suggestions about the arrangement of your material when you come to present it to your reader.

Your instructor, of course, will in this case be your reader as well as your trainer. A writer cannot usually consult his public in advance in order to learn whether he has the right information for his purpose, and whether he is presenting it in the way that will make the best effect. When you write a letter to an employer asking for a job, you cannot first ask him what and how

he wants you to write. But since your reader is your instructor, you can consult him beforehand. Show him your notes, and let him advise you how to use them to the best advantage.

Make written notes in the form most convenient to yourself of your past experiences, tastes and curiosities, and submit them to your instructor.

III

What you have now written is "notes," not "final copy." It is raw material, not a finished product, lumber and not a house. A reader could, perhaps, get something from your notes, but he would have to work for it, and he might be unwilling to do the work. All reading requires some effort. You ought now, therefore, to put your information into such shape as will reduce the effort which your reader must make to understand you.

In this you are doing nothing unusual. The kind of writing which you have in hand is one which you have done already on various occasions, and which you will do again on many other occasions. It is *real* writing, because you are using all your skill for the purpose of getting something you want through the device of written words. All your life you will continually be called upon to give account of yourself, to tell who you are, what you have done, what you think you can

do, what you hope to do, why you should be permitted to do it, and what you expect to get when it is done. In such writing, you never can afford to assume that the person addressed has any personal reason for acceding to your wishes or even for listening to you at all. You must win your reader to your way of looking at your subject, especially when your subject is yourself. The only thing unusual in your present operation is that you are giving conscious attention to the way of doing it, and your reader is watching and guiding you in order that you may do it well. The fish is waiting ready to tell you how he can be caught. But he must be fairly caught. He is not going to walk into your boat.

The next question, therefore, is how to arrange your material. Such information is often presented in tabular form or in the form of answers to a questionnaire. In the case of a questionnaire the classification of your material is predetermined for you by someone else. You have doubtless already had some experience in the use of that form. You may, for instance, have had to fill out an application blank for admission to college. In such a case the problem of writing is much simplified. You have merely to read and understand the questions and answer them precisely and legibly. But this form is not so useful when you have to analyze material for yourself. For classifying your own information, and even under some conditions for presenting it, the tabular form is better.

You may, at present, find it helpful to make a table or blank form to cover the facts you are dealing with. Group the information about yourself under such heads as name, birthplace, residence, family background, schooling, studies, peculiar tastes, adventures, hobbies, etc. A convenient mechanical device for this purpose is to put each group of facts on a separate card or page of your notebook under a suitable heading. Even the tabular form, however, has a limited usefulness. It is a good way in which to analyze a subject. It also saves the time of a reader who must consider a large number of such communications. But there its usefulness generally stops.

When you are one of hundreds of applicants for admission to college, you naturally present your application on a blank form. But when you expect individual consideration, you write a letter. You write a letter to your father, describing what you are accomplishing in college, the opportunities you are utilizing, the unexpected expenses you have to meet, and you ask for an increase in your allowance. You write a letter to the dean explaining that you are much interested in your course in mathematics, that you understand you have made progress in the subject, that unfortunately you were compelled by illness to absent yourself from the last few weeks of the course, that as a result you failed to pass the final examination, but you have now made up the work you missed and

request a special examination. You write a letter to an employer stating that you have majored in college in such and such subjects, that you have had such and such experience while working during vacations, that you can refer to such and such persons who will recommend you, and you apply for a job. The request which you have now to make of your English instructor for advice in the selection of a subject of study is precisely of the kind which you may frequently be called upon to present in the form of a letter.

Therefore, write a letter to your instructor. You hardly need to be told that in writing a letter, which for the time being is *you*, all of you which has access to the reader, you should give the most careful attention to how it will look and sound. You would not burst unannounced into the dean's office, your hat on, your face dirty, your clothes awry, your shoes muddy, and blurt out your request as though he were going to give you what you want merely because you want it and ask for it in a loud voice. If you are ever stranded in the wilderness, you will be able to get food, not because you are hungry, but because you know how to shoot something you can eat. When you write a letter, shoot straight; consider what your letter says, how it looks, how it sounds.

An effective letter is first of all polite and considerate. That does not mean that it makes effusive use of the phrases of formal courtesy. It will neither

gush nor whine. But it will at least be written with suitable materials. You would hardly write to the manager of a business house on any old scrap of paper nor yet on pink perfumed stationery with lavender ink. The letter itself will begin with the formal statement of the exact name, official title and post office address of the person to whom you are writing. The writing will be legible and neatly arranged on the page. In concluding you will not thank your reader in advance as though you already knew that he would make a favorable reply, or as though you wished to save yourself the trouble of thanking him afterward. And you will sign your name in a hand that can be read. So much for manners.

In presenting your case, you must make sure that the reader learns who you are. You must also state your business. Precisely but tactfully make clear what you want. At some appropriate point you may express your hope for a favorable reply, but do not write as though you thought yourself entitled to it. If you can put your personality into what you write, so much the better, but the best way to get your personality expressed is not to think too much about it. Certainly you cannot express personality by mere agitation or flippancy. If you are in doubt about how to write a letter, you may find it well to practise composing a few letters to imaginary correspondents, the dean or an employer for instance, and show them to your in-

structor, who will be able to tell you fairly well what the probable response would be.

But your chief business now is to write a letter to your instructor himself, which will lead him to give you what advice you need for starting on a subject to which you may wish to devote some months of attention. Although this will be a more informal letter, you will still need to consider the best means of making a favorable impression and of effecting your purpose.

Take stock of the information you have to use. It is not all equally important. Some of it ought to be discarded. What remains will need to be arranged. You wish to be clear. You wish to lead the reader along. You wish to place the emphasis on the right points. Your facts should not fall into some merely accidental order as though you had shaken them out of a bag. Certain facts will belong with others, and this group will precede that. One matter should lead to another, and all should lead to the conclusion, which is the vital point in your communication. The conclusion may propose some definite question of choice or procedure to which you wish your instructor to give particular attention. You may have told how you have always been interested in horses, but how you have lately become interested in electricity or in social work. The final question may now be which subject to choose, and how to proceed with whatever you have chosen.

Having collected your facts, you have selected and arranged them. You have also planned what to say. Now *say* it. Write out rapidly on paper what you have planned. Change your plan if you can better it, but never lose sight of it. Pay attention at this stage to nothing else. You have your materials and your blue print. Run up the house, and waste no time over details.

When you have done this, you have made your rough draft. Next, prepare your copy for the reader. That means, in this case: Rewrite your letter, making it as presentable in detail as in general arrangement.

This English instructor on whom you are trying your skill is a very human sort of person. Like everyone except your devoted friends and relatives, he has no personal interest in reading what you write. He would probably prefer to read something else, in which he is indeed personally interested. But his business is to receive, read, criticize and return numerous manuscripts such as yours. This, at best, is laborious and tiresome. You can serve your own welfare, therefore, by making things as easy as possible for him. Readers have habits. They have tacit understandings with writers. These understandings are modes of "coming together," which is the literal meaning of the word *convention*. The habits of readers are the conventions observed by writers. Conventions are not sacred; they are not always efficient; they sometimes

need to be changed. But they are convenient. They let you know what to expect. They are like train schedules which let you know that you must take the train at eight o'clock if you want to get to your destination, even though you had rather go at nine. They are like the alphabet. Almost anybody could improve upon it, but what a nuisance if everybody began to try.

In preparing your final copy, therefore, be as unusual, as unconventional, as you please in *what* you say. Make sure, however, that you use the customary convenient forms in the *manner* of saying it. That is all-important if your reader is to understand you. Use the size and kind of paper, the mechanical arrangement of manuscript, current in your college. Make sure that your sentences are straight in subject, predicate and modifiers. Adjust punctuation to syntax and meaning. Take care of the diction and the spelling. Do all this proofreading yourself, and do it carefully, paying at the time no attention to anything else.

By all means do this part of the work last. Although conventions are important, they are not so important as having something to say and getting it said. Do not begin your house by putting in the plumbing. Practiced writers think first of their subject and the effect they wish to make on their public. They prepare the copy for the reader only after the more essential matters are decided and done. They learn eventually to do two or more of these things at once, not by

starting in a hurry but by starting slowly and giving attention to each operation. When you began to learn to drive a car, you learned one thing at a time, spark, gas, brake, gears, wheel. In this way you presently became able to perform all parts of the process almost simultaneously. In the same way you will learn to write rapidly and well. For the present take your time. Make sure, first, that you have said what you want to say, and after that make sure that you have prepared a final copy which is as correct, as convenient for the reader, as you are able to make it.

The chances are that you do not yet know all the conventions used in a final copy. Never mind. Your main business now is to place before your instructor a clear statement of your tastes and curiosities, what you want to know and what you want to do, in order that he may advise you how to get started in the use of college for knowing and doing what you want.

Plan a communication addressed to your instructor asking his advice in the selection of a subject of study.

Make a rough draft of the communication you have planned.

Prepare a final copy to be submitted to your reader.

Proofread your manuscript.

CHAPTER II

FINDING A SUBJECT

I

In order to study your case, together with the cases of others, your instructor will need several days to consider your letter. While you are waiting, you may be able to do something for yourself toward determining your subject. For the next four years the college is to be your world. Learn to know it. Find out what it has done in the past. Discover what it is doing in the present. Delve into the catalogues. Read the characterizations of courses. Explore the buildings. Examine the laboratories. Visit the museums. Haunt the libraries. Talk with those you meet. Ask them what they are doing. Be curious about everything. You may possibly discover that your experiences, your tastes and your hobbies are not very different from the subjects in your schedule, and that the problem of discovering the one thing you want to know is quite simple after all.

You may stumble upon it unawares. An instrument in the physics laboratory may show you that the explanation of a puzzling click in the wireless is a part

of Physics I. The labels on the rocks in one of the museums may show you that the gray-green ledges that overlap one another in bewildering fashion above the creek in your neighbor's pasture are the materials of a science called "stratigraphy." One of the volumes in the exhibit of new books in the reading room of the general library may show you that you are curious about the rhythm of jazz and not about the blare of the saxophone. A recent article in one of the magazine racks may show you that while you are not curious at all about your neighbor's children, with their dirty faces and chapped hands, you are inordinately curious about settlement work. Conceivably, therefore, when your turn to consult your instructor finally comes, you may need to ask of him nothing but a verification of your choice.

There are less haphazard methods of finding a subject for yourself. Your instructor in English may suggest in class a number of topics, one of which may touch your imagination, or he may post a longer list arranged under appropriate headings. Your instructors in other subjects—in biology or economics or history or philosophy—may add suggestions for collateral readings in their special fields. The librarian, too, may issue a pamphlet dealing with the resources of the library and the experiences of students in other years. Do not neglect the pointers they can give you. Whatever you think you are curious about, reserve a sec-

tion of your notebook for the purpose of recording the titles of books and articles you may wish to read on this subject or on that. You will not read them all, and you may not read any of them; but the list will be a helpful reminder. You cannot become a master in any field by becoming a slave to a single book.

In the busy years of later life you will have few of the aids which college affords. For that reason, if for no other, you should learn how to use libraries, which you will always have. Turn, therefore, to the college library. In the card catalogue you will find numerous "subject" headings with smaller "topical" headings grouped under them. Some of the latter may lead you to the thing about which you are curious. You may know that you are interested in history or biology, but may never have discovered that you are particularly interested in American imperialism or comparative anatomy. If you are sufficiently alert, you may discover through the card catalogue the subject that means more to you than any other.

Such are some of the ways in which you can help yourself. By their use you may form some rather definite ideas regarding the subjects about which you are curious before it comes time to confer with your instructor. Whatever they may be, he will listen to them with respect and understanding. He may approve them and tell you how to go ahead. On the other

hand, he may show you that they are such as you cannot hope to follow up successfully. They may lead to subjects that are too large or too vague or too difficult for you to handle. He may therefore suggest the single tax instead of bolshevism or your father's factory instead of the textile industry. He will do so not in order to impose his opinions upon you but to direct your interest to something more manageable and more profitable. You may be sure that your instructor does not wish to limit your freedom. Be yourself, therefore; be curious about something which you think worth while; be active in cultivating that particular curiosity. Above all, be honest with yourself.

Be honest, also, with your instructor. You may stare at him blankly and assure him that you are not interested in anything at all. But that, of course, is nonsense. You have interests, though you may have stifled them. You may be curious, shall we say, about free verse or psychoanalysis, but more or less ashamed of the fact. In your school, your circle, your community, perhaps, such subjects were not often discussed. Perhaps they were thought not quite the thing, and you did not want to seem queer. None the less, you would like to know about free verse or psychoanalysis. If you do not follow up your curiosity now, it will be because you are intellectually timid. You are afraid of your classmates, who are to be your audience, just as you may have been afraid of your

parents, your friends, your acquaintances and even strangers. You do not want to appear off-color, and you are not quite sure about the correct thing in college. You may, indeed, have an impression of college that has misled you. College is not a place in which to be diffident or bored or smart. College is merely a group of young people who are groping, as you are groping, for the interests which will help them to be useful and happy, and who, since they have been bundled into a society to which they are not accustomed, feel and, indeed, appear a little queer. But remember that a beginner in anything always looks ridiculous. Out of fear that you may be unconventional, though clever, you may foolishly prefer to be conventional, though dull. As a result, you may not seem very queer, but you are certain to be a bore to others as well as to yourself. No one can be more tiresome than the person who never ventures. No one is more likely to become the butt of his fellows than the student who is afraid of what his classmates will think of him if he tries to do the things he would really like to do.

Beware especially of selecting a topic because you think your instructor wants a particular kind of thing, and not because you are interested in it yourself. He may be personally devoted to Shakespeare or Tennyson. If you, too, have a bent toward literary problems, choose them by all means. But if you care no more for

Macbeth or *The Idylls of the King* than a squirrel does for cabbages or a rabbit does for nuts, leave them alone. They belong to your instructor, and he will hardly thank you for meddling with them for his sake when you could be doing something much more interesting for your own. Naturally you will want to please him, but you can please him best by considering him as a human being and not as a dry-as-dust automaton. Did it ever occur to you that, even if he is devoted to Elizabethan tragedy or Victorian poetry (and the chances are that he is not particularly interested in either but in subjects like medieval mysticism and the Gothic romance, of which you may never have heard), he must find it desperately dull to examine the same kind of papers year after year? Since he, too, is curious, he may prefer to hear about subjects like radio tubes or early American furniture, concerning which you may know more than he does, rather than about subjects concerning which you know much less. Of course, if you are curious above all things else about Elizabethan tragedy or Victorian poetry, you can count on his knowledge and his enthusiasm, perhaps even share with him the joy of intellectual comradeship.

But he may also like detective stories or football yarns or electricity. If you take him at his word and tell him honestly what you are curious about—be it fly-fishing or gardening—you may find that split

bamboos or chrysanthemums are among his hobbies, too; that you do not need to surrender your own curiosity to please him; and that, by sticking to your own tastes, you may discover his. Remember, then—for it cannot be emphasized too often—that your preconceived ideas about him may be wrong; that he is probably not supremely interested in what you suppose him to be, and that he may be keenly interested in what you do not expect. Above all, remember that, like most people, he enjoys variety. Take him, therefore, at his word. For once be curious for yourself.

How can you begin to cultivate your curiosity for the subject you have chosen? There are various ways in which you may start. Most people start by finding out what other people have to say. Only through books can you learn much of what has taken place in the world, only through magazines much of what is now taking place. If your subject is Egyptian archaeology, you cannot explore the banks of the Nile. You will have to depend largely upon the reports of those who have explored them. If your subject is colonial architecture, you may have seen Salem but you cannot visit Richmond. You will have to depend upon those who have pictured the Old South in some of the illustrated volumes that have recently appeared. If your subject is one that is growing from month to month, and even from week to week—a subject like Latin-American literature or immunization—you will also

find it wise to profit from the curiosity of others as you find it reflected in the magazines of the month or the week. In any case, in beginning the exploration of your subject, whatever it may be, you will need, first of all, to *read*.

As soon as possible put your hands on a book or an article which provides a bird's-eye view of the subject, which sets forth the leading ideas about it, or which indicates the significance of certain outstanding facts. You may already know a book or an article which may be what you want. Look it up and see. If you have been reading about the gang wars in New York or Chicago, you may wonder whether capital punishment does deter. Well, there is Clarence Darrow's article on the subject in the *Forum*. Or you may wonder about the rise in the stock market. What has happened to prices in the past? What is going to happen in the future? If you are tempted to be a historian or a prophet, there is John Moody's article, "The New Era in Wall Street," in the *Atlantic Monthly*. Both Darrow and Moody are men of whom you have heard. Their names are always cropping up when talk shifts to crime or investment. You may even have fingered the pages of their articles. Their work, or that of someone like them, may serve as an introduction to the subject you wish to explore.

If you are not lucky enough to stumble on a "lead" of this kind, fall back upon your instructor, your

friends or your classmates. If you are alert and put the right question, they will give you the cue you need. But, better yet, go to the library and find for yourself a book or an article which will provide an approach to your subject. Since you will eventually land in the library anyway, you may as well go there first as last. Start in again on the card catalogue. Pick out the titles of a few books and articles that seem promising. Send for them and look them over. If you are permitted, go into the stacks and ramble along the shelves. Take down several volumes that strike your fancy. Select one and read it as for dear life. You have chosen it because you want to get something from it. You cannot get that something, whatever it is—statistics on immigration into the United States or figures on the cotton crop in Louisiana—if you begin your task with the idea that the author must give you precisely what you want. You are not a bucket which he has guaranteed to fill. You are a prospector for facts and ideas, and if you are going to find the information you want, you will have to be ready to dig for it.

If you are going to make your work count, see to it that both time and place are right. You cannot afford to work when you know that you cannot work effectively. You cannot afford to work where you know that you cannot get returns. You cannot read with much zest in the half hour before class or in the crowded corner of a public lobby. Whatever you have

done in the past, however much you may have dawdled over the books you once believed you were reading, act now as if you mean business. If you are curious, and if both time and place suit your curiosity, you will find that even from the dullest pages you will now and then turn up a nugget of gold. Each discovery will lead to others. Out of your reading, indeed, you ought to get as much excitement as you ever got from *Treasure Island* or *Gulliver's Travels;* for reading of this sort, if you are an adventurer, can be like an adventure in a strange country.

While waiting to confer with your instructor, take steps to form more definite ideas of your own for the selection of a subject.

Confer with your instructor and finally select a subject because you are interested in it yourself whether anyone else likes it or not.

Then find a book or article which will give you a general preliminary view.

II

The best means of making sure that you have understood what you have read is to try to make someone else understand. For this reason write out for your instructor in your own words, and with no more than brief quotations, what you regard as the salient facts and dominant ideas of the book or article which you

have selected. In order that he may be able to refer to it without difficulty if he wishes to do so, cite the author, the title and, if possible, the date of publication at the head of your report.

When you are ready to begin the preparation of your statement, choose the right time and the right place, that is the time and the place that are right for you. The right time will be enough time, uninterrupted time and, if possible, that hour of the day when you are most alert; for you need a clear head for the job in hand. You also need a place propitious for your work. You should be physically comfortable. You should have a table with plenty of elbow room, a chair from which you can reach across the table without inconvenience, and a proper light, suitably adjusted. You cannot expect to make yourself understood if you are perched on the arm of a couch or slumped in a *chaise-longue* with a cigarette between your fingers. Be comfortable but not too comfortable. If ever you need to be awake, it is now.

Time and place, leisure and comfort, will not be of much help unless you have the right materials. You must have tools with which to work. You need paper, of course, and you should know of what size and color, whether ruled or unruled. You need a typewriter, a pen or a pencil. Possibly your thoughts reach your copy most easily through the keys of a typewriter. If so, use a typewriter; but make certain

that it works. Don't run the risk of having to tinker with it as soon as you get started. Possibly you have used a pen for so many years that it acts like a spark to set the words spluttering on the sheets before you. If so, use a pen; but before you begin, make certain that it is filled. Possibly you are accustomed only to the "feel" of a pencil, and both typewriter and pen interrupt the flow of your ideas. If so, use a pencil; but make certain that your pencil—or, better, your pencils—are properly sharpened and long enough for you to get your fingers on them. Whatever you use, typewriter, pen or pencil, have it ready in working order so that your thoughts will never grow so cold because of interruptions that you will have difficulty in getting them started again.

The important thing is to get your statement down on paper. What you are going to write is to be a test of your knowledge of the book or article which you have read. You are now supposed to be a master of what it says. How can you be sure that you are? One way is to toss aside the book or the article and try to reproduce its essential facts and ideas so that others will see them as you yourself see them. Avoid long quotations from your author. If you have made his leading points a part of your own thought, you can express them in your own words, and are not likely to have much difficulty in explaining them.

When you have finished reading your book or article, lay it aside and draw up for your instructor a statement of the essential facts and ideas you have got from it.

III

After you have tested your understanding of what you have read by drawing up a statement for your instructor, you can test yourself still further by telling your classmates about it. Try it out on them. If you have missed anything of importance, they will spot it for you. Writing in quiet and comfort, you may feel entirely confident. Before others you may discover that you are far from certain of your knowledge, and that when you come to talk, things do not seem so clear as you expected them to be. You will then begin to ask yourself some rather embarrassing questions, and you will doubtless find that those who listen to you will probably ask others even more embarrassing. What are some of the questions which they will be likely to ask? What, therefore, are some of the questions which you should ask yourself after you have finished your statement?

The first question which you should put to yourself, and which your instructor will certainly put to you, is whether you have seized upon the main facts and the main ideas. In order to answer this question,

it is obvious that you must understand what is a fact and what is an idea. Offhand you may find it difficult to make a distinction. When the authors of this book asked a group of students to distinguish between these terms, they gave widely different definitions. A fact, they said, is an event, something that has happened, something known to exist, an entity outside one's mind, an occurrence that can be demonstrated, a truth discovered through observation. An idea they characterized as a mental reaction to an event, the result of associating different happenings, the realization that a certain state of affairs may exist, the child of one's brain, and so forth. Evidently in all these attempts they were trying to say that a fact is something susceptible of proof which has happened outside of one's own consciousness, and that an idea consists of a relationship which we set up between such happenings or between such happenings and ourselves. Let us see how this distinction works.

If you are curious about your nerves or your muscles, the controls or the machines through which you think or act, a good book to tackle is Sir Arthur Keith's *The Engines of the Human Body*. It deals not with what may be but with what is. You can see or feel all the things Keith talks about, such things as ganglia and biceps, glands and tissues. His book is essentially a beginner's book, a book for anyone who needs to know the elements of anatomy before con-

sidering their relation, let us say, to the health of the individual. It differs from a text on physiology only in the way in which the author explains how the parts of the body are formed and how they do their work. He almost seems not to be interested in ideas at all.

Or take another case. Suppose you are concerned about the lot of the workers in the mill towns of Massachusetts or Pennsylvania. To fix your perspective, you have, perhaps, delved into André Siegfried's *America Comes of Age*. Several of its chapters bear immediately upon your problem, especially those dealing with labor and the standard of living, the spirit and methods of industry in the United States, the American system of production and its limitations. The book contains many figures that conceivably may be useful to you; figures, for instance, about the number of native-born employees in various trades; the mechanical contrivances they enjoy in their homes; the recreations in which they engage. You can easily check all these figures; you cannot possibly escape from them; and you must accept them. They are Siegfried's facts. Yet in purpose they differ essentially from those selected by Keith. What is the difference?

An understanding of the difference may help you materially in your search for facts and ideas and in your struggle to separate them. In *The Engines of the Human Body* are chapters that describe the respir-

atory and the digestive systems. Each chapter contains a series of details related to one another: windpipe, bronchi, lungs, on the one hand; oesophagus and stomach, on the other. In each case, all the parts belong to the same order; that is, all relate to anatomy. What Keith tries to do is to explain to his readers how our physical organs work together, and how they function one after the other in time. Essentially he is not concerned with anything else. When he talks about motor, internal combustion and reciprocal engines, levers, lubricating, postal and transport systems, pumps, bellows, workshops, factories and automatic telephone exchanges, he reaches out of course into other orders; but he uses facts about machines merely to show by analogy how each part of the body performs its duties. If he had chosen, he might have connected such matters as lack of sleep and exercise with certain effects on the respiratory system, or excessive eating or drinking with certain other effects on the digestive system; but since his book is intended for the beginner, he sticks to simple, primary facts. It is hard to go wrong on them. Indeed, in the case of any subject it is safe to say that in your search for information you should seek first for classifications in a particular order, for scientific statements of demonstrable sequences.

In a book like *America Comes of Age*, facts are evidently less important than ideas. They cry out

to be related to other orders. If you wanted facts like Keith's, you would go at once to various statistical abstracts and governmental reports. Siegfried, of course, went to them; but he has gone further. Under his hands primary facts like Keith's become secondary, or what may be called speculative facts, which immediately project his readers into the realm of ideas. Keith stops when he has made the facts in all their relations clear, and he advances no theory as to why they happened and ventures upon no prophecy of results that will follow from them. Siegfried, on the other hand, goes on to develop an idea or theory which he thinks explains how America came to have the kind of civilization it has and how the conditions of life in this country will affect the happiness of individual men and women. Siegfried is mainly concerned, therefore, not with what is but with what may be. His book is of a different kind from Keith's, and you in your reading should use both kinds.

Whatever the character of your book or article, have you differentiated between your author's facts and his ideas? Have you said, as in the case of Keith, that he is always the scientist attracted to sequences for their own sake; in the case of Siegfried, that he is always the philosopher fascinated not by facts in and for themselves but because of their implications? Whether you are considering facts or ideas, have you caught them all? If not, have you caught those which,

considering the time you had to spend, are most important from your point of view? You cannot include everything. At best you can mention only what is most significant. How, then, can you determine what is most significant? Though there is no sleight of hand available, there is at least a common sense method of procedure. If you have been trying to interpret the gist of a book, look back over the titles of the chapters and see whether you can summarize in a brief sentence the point of each chapter. If you have been dealing with an article, see whether you can do the same thing for each paragraph. When these sentences are grouped together, they will help you to check your statement. Have you covered each chapter or paragraph? Have you given enough space to each? Have you stinted what was important? Have you stressed what is trivial? As you read the two versions, side by side, is the impression the same? If not, what is wrong? Where have you gone astray?

Even though you have said clearly what you had to say, not bungled sentences and not used words which do not mean what you think they mean, you may nevertheless have gone astray because you have been too fascinated by one topic or another that has appealed to you. Your own experiences, your own tastes, your own hobbies are likely to act as deflectors and throw your picture out of focus. Turn back, then, to your book or to your article and examine it again.

Has your interest in Virginia led you to do less than justice to your author's interest in Connecticut? Has your pride in the achievements of the Irish in America led you to discount your author's story of the contributions made by the Germans or the Poles? Make certain that you have told the truth. Make certain that you have been a mirror and not a magnifier. Make certain that your statement is a sieve through which the essential ideas can filter to your readers.

Above all, do not forget the impression which they have made upon your author and upon you. Is Keith's point of view merely that of the physician interpreted in a language that is not his own? Does he ever lose himself in the engineer? Does Siegfried think that America's age is a happy one? Does he seem envious of the wealth and prosperity of the United States? Does *The Engines of the Human Body* reveal to you merely a series of efficient but not very mysterious contrivances, or does it leave a picture of a complicated and wonderful mechanism, which, when tended with care and understanding, can be made the servant of a ready will? Does *America Comes of Age* mean a regimentation of humanity that will dull the joy of life in town and village, or does it mean a new leisured class of workers released for the richer pleasures of a more cultivated society? Unless you find that you have summarized in some such way the manner in which a writer regards his

material, and the manner in which it impresses you, turn back to your book or to your article; you have missed the heart of it.

In anticipation of the questions which your classmates will ask you, ask yourself in criticism of your statement to your instructor, whether you have differentiated between the facts and ideas in the book or article which you have read, whether you have set forth those that are essential, and whether you have made clear what they mean to the author and to you.

CHAPTER III

FOLLOWING UP THE SUBJECT

I

When you wish to know more about a matter than you can find in the book or article which has given you a preliminary view of the subject, how shall you proceed? What shall you do to follow up your subject?

Let us first give an illustration of what normally will have happened to you and what probably you have done. You may have been an out-of-door sort of person, fond of hunting and fishing, or you may come from a family which has been actively interested in public affairs. You have waded trout streams, or you have talked politics over the dinner table with your father. Now that you are in college, you have begun the study of biology or of American history and government. Searching the library for a book on biology, you have come upon J. Arthur Thomson's *The Haunts of Life*. Or if your field is American politics, you have picked out J. C. Long's *Bryan, the Great Commoner*. Of course, your subject may be something quite different, the rhythm of prose, the

stock market, the boll weevil, the pyramids of Egypt, or what you will. Whatever it may be, the illustrations we have chosen will show in general what you do when you follow up a subject for yourself.

Reading Thomson's book to grasp his *ideas* on the subject as distinguished from the *facts*, and to note how he uses *facts* to support his *ideas*, you have discovered that your author points out that living creatures seem to adapt their forms and their ways of life to the physical conditions in which they find themselves. When they have adapted themselves to one set of conditions, they send out pioneers into others, and these pioneers, if they succeed, do so in turn by changing their forms and habits to fit the new conditions. Thomson's method is to describe the various conditions which life has to meet and then the way in which life adapts itself to such changes. He tells you first what it would be like to start life in a tidal pool on the seashore, the easiest place in the world, he thinks, in which to live. Then, as that neighborhood or "haunt of life" becomes too crowded, he shows how some of the living creatures push out to sea or up the rivers, out on the dry land, up into the air, changing forms and habits with each change of environment. The fish adopts air-breathing lungs, crawls out on the bank and stays there. The reptile invents wings and accustoms himself to flying. Thomson is not trying to prove a scientific law to the sat-

isfaction of scientists. He is using the facts of nature as science states them in order to enable the ordinary reader to form some notion of the way in which scientists explain the facts. Something like this you have gathered from his book, and you have set it down in the report you have written.

Or let us suppose that you have been reading Long's *Bryan*. You find set forth the theory that Bryan was an energetic, devoted, enthusiastic, conscientious idealist. Long portrays him as a man devoted to the interests of the common people of the farms and villages. He shows Bryan entering politics in Nebraska in the early nineties when the people were discontented with their lot in industry, business, finance and education. Against the gold standard, against imperialism, against private monopoly, against alcohol, against war, against evolution, Bryan went crusading. But Long never says that he was right or that he was wrong. He says merely that Bryan had the power to persuade his followers that he could lead them to a better life, and he bases this picture on the facts of Bryan's career as supplied by historians and biographers, by newspapers, by the man's own speeches and letters and by memories preserved by friends and relatives. You have thus grasped your author's idea of his subject and the evidence he has used, and you have set down what you have understood.

In this way you have read Thomson or Long or somebody else, and you have begun to form a definite conception of your subject. What shall you do next? The book you have read serves very well so far as it goes. But you can be sure that it does not tell you all there is to know about the matter, and probably not all it tells you is correct. Never rely on a single author, but follow up the subject for yourself.

You cannot follow up your subject by going to the library and looking for another book precisely like the first. Even if you could find such a book, it would help you little. Your first book has roused your interest and possibly suggested the general outlines of the subject. In order to learn more, you must concentrate on particular points. Analyze the book you have read, and divide the subject into its parts. Fix on a topic for closer attention. Pick up a scent which, if you follow it through, may lead you to the game you are tracking. Let us turn to Thomson and to Long for further illustration.

Thomson's theory, you found, is that life is always trying to extend itself by driving some creatures to change their place of habitation and adapt themselves to new conditions. There are creatures which seem at this very time to be trying to change. For instance, some animals, at a certain point in their cycle of life, migrate from one set of conditions to another as though they were not yet ready but per-

haps getting ready to settle permanently in one or the other. Thus eels are born in the sea, migrate to the inland waters and then go back to the sea to spawn, whereas the salmon spawn in the rivers and migrate to the deep sea. Now if you knew enough about eels or salmon, you might be able to tell how near Thomson comes to the truth. Better still, you would yourself come to know and to have something to say not only about eels or salmon but also about the habits of living creatures and the mystery of their development. One way, therefore, though of course not the only way, of following up the subject, would be to go to the library and see what you could learn about the cycle of change in one of the migrating species as to which Thomson has given you a clue.

Or let us say that you have been struck by Long's presentation of Bryan's free silver campaign, not as a dangerous heresy nor as a crusade, but as a well-meant endeavor to help the common people in their need. What was the need of the people of the Mississippi Valley in 1896? What were the economic conditions which caused them to be so discontented? Why did they think that the free coinage of silver would relieve them? What is the relation of currency to prosperity? In other words, you can follow up your subject in this case by following some such trail as free silver. Track down free silver, and you will know better what to think and sav about Bryan.

The quickest way to get on the trail of your subject is to go to the library and follow the blazes that others have made before you. Not that books are the only source of knowledge. Suppose that you are trying to learn about migratory fish or about Bryan. If you have dissected fish in a laboratory, or if you have lived on a farm and seen what happens when the price of wheat drops, you may already have seen with your own eyes what will be of use to you. But now the thing to do is to get acquainted with the literature of your subject. Find out what has been learned and written and published about eels and salmon, free silver or whatever topic you choose.

The first thing to do is to make a bibliography. This does not mean to rummage in the library until you find another book dealing with the subject and to read that through from cover to cover. It means to draw up a list of books and articles before you begin to read at all, and to get what information you can about these books in order to select those which will best serve your purpose.

But don't be in a hurry. Don't be afraid lest you should not finish your task according to schedule. If you take time now to understand what you are about, you will save time in the end. Learn how to handle the common tools for reference in the library. If you are not familiar with them, ask the librarian. You will also find it useful to consult such a manual as

Hutchins, Johnson and Williams's *Guide to the Use of Libraries* (revised edition, 1925; see especially Chapter XXIX, Bibliography).

You are already familiar with the card catalogue of the library, with its classification of books according to subject, title and author. Look up your topic in the library catalogue, and judging as well as you can by the title, author, table of contents, date and place of publication, fix on the books that seem to be to your purpose. In case the catalogue tells you that certain books include a bibliography, send for these books and note the references given in them in the same way that you did those in the card catalogue.

When you have carried this line of inquiry as far as seems useful, your next step in most cases will be to consult the standard works of reference. At this point you may feel somewhat appalled at the task of following up your subject through what seems a formidable apparatus of catalogues, indexes and encyclopedias. But with patience and a clear head, you need have no misgivings. Do one thing at a time, establish your method, and don't be in a hurry. Results will come if you learn to work diligently and systematically. A book of reference, not being designed as a rule for continuous reading, is arranged according to some classification of the contents which enables you to find readily the particular matter which you want. Always begin on a book of reference which is new to

you by noting the system of classification which it employs.

For ordinary purposes, the library catalogue and the encyclopedias will be enough for you to begin on. Consult the *Encyclopedia Britannica* (11th edition) and the *New International Encyclopedia* (2nd edition) for their well-selected bibliographies as well as for their articles on the subjects they treat. Notice, however, that the *Britannica* provides extended articles under broad headings, the *New International* shorter articles on more numerous and somewhat narrower topics. The *Britannica* also supplies an index which enables you to search for any given subject under several headings, and the *New International* instead of an index supplies cross-references from one article to another. Thus each encyclopedia has its own method of arrangement and classification.

In addition to the encylopedias, the most commonly used reference books are the special indexes of books and periodicals. The *American Library Association Index to General Literature* (*A. L. A. Index*) is an index to non-fiction books arranged by subject and author. *Poole's Index to Periodical Literature* and *Reader's Guide to Periodical Literature*, which you will use for subjects of contemporary interest, are similar indexes to the principal periodicals published in English. *Poole's Index*, extending to 1907, is continued by *The Reader's Guide*, which is pub-

lished cumulatively, that is, brought down to date by monthly numbers. In using either of these indexes, therefore, you must know under what date to look. A good practice is to examine the most recent volumes first, and then work back through the preceding ones.

In ordinary cases the works of reference so far mentioned will be amply sufficient. Certainly you should not spend so much time making a list of books that you have no time left for reading any of them. But occasion may arise for seeking further, or your subject may be of such a nature that the best references are to be found in an index limited to a particular field or to a particular type of publication. You may, for instance, need to refer to the publications of the United States Government, in which case you had better consult W. I. Swanton's *Guide to United States Government Publications*. *The New York Times Index* is a subject index to current events as reported day by day in a leading metropolitan newspaper. Other classified lists of books on special subjects are: *Agricultural Index*, *Industrial Arts Index*, *Engineering Index*, *Index Medicus*, *Public Affairs Information Service*, *Book Review Digest*, *Dramatic Index*. There are, of course, still other works of reference about which you may need to know. For information concerning them, you had better consult the librarian or turn to I. G. Mudge's *New Guide to Reference Books*, a complete descrip-

tive list, arranged by subjects, of all reference books and bibliographical indexes in the principal languages.

Such is the normal procedure. But whatever you may be investigating, the only safe rule is to be ready in adjusting your methods to the demands of your subject. One of immediate interest like international disarmament may take you directly to the periodical indexes and to the *New York Times Index*. In the same way, reclamation of arable lands may take you to government reports, textiles to the *Industrial Arts Index*, the little theatre movement to the *Dramatic Index*. Hints of one kind or another you can doubtless get from your instructor in English, from members of the department in whose field the subject falls, or from the librarian. But your chief reliance will have to be on your own resourcefulness.

Begin reading long before your bibliography is complete. But do not begin by sending for just one likely looking book and perusing it from cover to cover. Send for several and devote a few minutes to looking through each volume in your pile. Some you will dismiss at once as of little use for your purpose; others you will set aside for further attention, making note in each case. When you have examined a number, begin to read; but return from time to time to this process of cursory examination.

Very likely you will make mistakes by overlooking something important and wasting time on some-

thing second-hand or out-of-date. But everybody makes mistakes, and there is no infallible rule for avoiding them. We can only give you certain warnings. For instance, be ready to re-define your topic, to change your approach. You may find little or no material on the subject under the name you have given it. There may be nothing on free silver. Very well, try something like bi-metallism. On the other hand, you may uncover such a mass of references that you could never go through them all in the time at your disposal. Very well, narrow your topic; focus your approach more sharply. Do you find a whole tray in the card catalogue on Elizabethan drama? Then limit your topic at first to something like Shakespeare's theatre. The important thing is to avoid confusion and to take pains to do one thing at a time and to do it intelligently. When you have mastered the tools of reference, you will be ready to put into form convenient for your own use the results of your inquiry into the literature of your subject.

Inform yourself concerning the literature of your subject by looking it up under various headings in the library catalogue, and in encyclopedias, periodical indexes and other sources as the nature of the subject may require.

II

You will wish to remember accurately whatever is important in the bibliographical information you are now collecting. But since you cannot carry it all in your head, you will have to take notes. A careful worker always takes notes of the facts he wishes to remember, and takes them in the way he wants to remember them. He does not make happy-go-lucky jottings, which he trusts to understand when the time comes to use them. He does not, on the other hand, try to fill with memoranda a thick notebook or huge box hoping that people will be impressed with his studiousness. Notes are most useful if they are concise and carefully thought out. Taking time to think out your notes will be in large measure the same as taking time to think out your subject, and consequently will save time for you in the long run. Therefore, in taking bibliographical notes, think out what you are going to need to remember, and arrange them so that you can use them without waste of effort.

A note should tell you what you want to know when you want to know it, and it should tell you nothing else. The most convenient device for the purpose is library cards, though the pages of a loose-leaf notebook can be used in the same way. Cards or a loose-leaf notebook enable you to save time and eyesight by the use of paper. Each card should be re-

served for a single complete item of information with a brief clear heading under which it can be filed alphabetically. Never make one card serve for more than one note. Never extend one note over more than one card, at any rate not without carrying over to the second card the heading under which it is to be filed.

In making bibliographical notes, the best thing to do is to follow the method used in your library card catalogue or in the catalogue of the Library of Congress, though you may wish to condense and to add somewhat to the facts recorded. Always begin with the author, title, date and place of publication of each book or article. For your purposes your notes had better, as a rule, be classified under the author's name. Thus a book will appear as follows:

Thomson, J. Arthur.
The Haunts of Life. New York, 1922.

Long, J. C.
Bryan, the Great Commoner. New York, 1928.

The most convenient procedure for you will be to begin by copying out the information you find in the library catalogue or other reference work. But in most cases you will wish to add other information. You may wish to add the library reference number or, if you think of buying the book yourself, the pub-

lisher's name. Above all, you will wish to add sufficient data concerning both the book and the author to enable you to decide whether to accept the work as a useful authority. You may not collect all the information at one time, but when a note is complete, it should tell you that such and such an author has written such and such a book or article to be found in such and such a place, and that the author has such and such qualifications for writing on the subject, and that his work is valuable for such and such purposes.

When you have taken care of these matters, your bibliographical note will be complete. Write nothing else on the card. Do not put down a long summary of the book or article, or even brief comments on any special matter, facts, ideas or quotations. That is, make no notes of subject matter on your bibliographical card beyond what may be necessary to remind you what topics are treated in the particular work in question. Save the subject matter for another kind of note which we shall explain later. You will have many notes and more than one kind. If you include on the bibliographical card any information concerning the subject, then, when you want that information, you will have to remember all the books or articles in which you found it or go through all your notes in order to find all the information you have collected on the subject. Bibliographical notes have just one function. They record what you have learned

about the literature of a subject. They do not attempt in any way to record what you have learned about the subject itself. Therefore, they are best arranged by authors rather than by topics.

The arrangement or "layout" of the individual card or note deserves attention. Place the separate entries on the card where they can be found easily by the eye. If possible, use ink. Write in a clear, compact hand. Make haste slowly. Take time to accustom yourself to the methods that will pay in the long run. If you learn how to work, you will enjoy what you are doing. Don't flounder unless you are willing to be bored and discouraged.

Make note on a separate card or notebook page of each book or article.

III

Though you make a bibliography, yet you cannot and need not read everything relating to your subject that has ever been printed. You may not even need to read everything on your list. You cannot master a subject merely by reading all the books on any list, and you cannot accept as final everything you do read. Some books are good, some bad, some useful for one purpose, some for another. Some you had better eliminate at the start. Some you will read only to disagree with or reject. Some you will discover

to be sound and authoritative. In other words, from beginning to end you will have to discriminate among the books you read. You will have to decide whether you had better read a given book or article at all. After you have read it, you will have to decide whether what you have read is of value, and if of value, then of what value. The next question, therefore, in this matter of bibliography, is, how to estimate the value of a given book or article for the purposes of your investigation.

In the final analysis the only way to be sure of knowing whether a writer is a good authority on a subject is to become a good authority yourself. You begin to be an authority as soon as you begin intelligently to study the subject. The first basis for your estimate of books is your own common sense, your own judgment grounded upon what you already know. In what you read you will soon learn to watch for certain points on which to rest your opinion. You will also want to find out what other judges think of your author's qualifications. For books and authors have their ratings, too, and there are ways of finding out what those ratings are.

Suppose that in studying your subject you have sent either for Thomson's *Haunts of Life* or for Long's *Bryan*. Is the book to be considered authoritative? Let us see what we can find out. To begin with, the title page of *The Haunts of Life* tells you that

the author is a professor, that he holds the degrees of M.A. and LL.D., and that he has written several other books on similar subjects. Though these facts do not prove beyond doubt that everything he says is sound, they do begin to establish the probability that he is worth considering. Turn over the title page and you will find, as is customary, the date when the book was copyrighted, in this case, 1922. That would indicate that the book is fairly up to date. Now turn to the preface. Thomson here tells you that this "simple book" is based upon a series of lectures given at the Royal Institution in London before an "alert audience" for the purpose of helping them to form vivid impressions of the haunts and habits of living creatures. Evidently this is not a book to be consulted for detailed precise scientific information but rather for its power to suggest interesting ways of interpreting scientific facts. That impression is borne out by a glance at the table of contents and by a rapid thumbing of the pages. You may discover that little space is devoted to particular matters such as may be important for your subject. But you may nevertheless decide that the book is worth reading for its general ideas and methods of procedure.

At the same time your common sense may warn you that popular writing on scientific subjects is sometimes superficial, untrustworthy and sensational. You would like to be sure that Thomson is a reliable

scientist as well as an agreeable writer. Not knowing enough about the subject to decide for yourself, you need to find out what competent persons think of his qualifications. Since Thomson appears to be British, turn to *Who's Who*, which contains information concerning prominent living people in Great Britain, and see what you can learn of your author. You find there that John Arthur Thomson was educated at British and German universities, that he has been for many years professor of natural history at Aberdeen, and that he is the author of upwards of thirty works, some of technical and some of popular character, on scientific subjects. This evidence, though not conclusive, indicates on the whole that he is a dependable authority. But you can go further in the matter by turning to the *Book Review Digest* for 1922. There you will find listed all the reviews of *The Haunts of Life* which appeared in the principal critical journals at the time of its publication. The book, you will discover, was widely noticed and approved. If you wish to verify the summaries in the *Book Review Digest*, you can look up the reviews which it cites.

Or suppose you wish to determine how much importance to give to Long's *Bryan* (a recent book, copyrighted in 1928). The title page tells you nothing of the author except his name, but in the foreword Mr. Long assures you that he has taken pains to

seek and to use authentic, first-hand information. He names the persons associated with Bryan who have supplied him with information. He mentions the libraries he has searched for material, and he refers to the appendix for important sources of information which he has used. The table of contents and the numerous illustrations indicate how extensively he has covered the subject. From all these details, you may conclude that this is probably an authoritative work. You do not, to be sure, find Mr. Long's name in *Who's Who in America*, but by referring to the *Book Review Digest* for 1928 you do find that his book was favorably received by the reviewers. You can look up the reviews themselves, and since some of them are signed, you can even look up the authors of them in *Who's Who in America*.

You can in this way form a preliminary estimate of the value of a book. Yet although these methods are good as far as they go, use them with discretion. What if your author does or does not appear in *Who's Who*? *Who's Who* includes merely people who are prominent, and prominent people sometimes write bad books. Good books are quite as often written by people who are not prominent in the way necessary for getting into *Who's Who*. Moreover, though book reviews are generally written by fair-minded, competent critics, they are sometimes written by hurried, partial, ill-informed, superficial, prejudiced or even

foolish persons. Take *Who's Who* and the reviews, therefore, with a grain of salt; learn to read between the lines.

In judging what you read as in judging anything else, you can find no substitute for your own intelligence. No matter what or whom you read, you must satisfy your own common sense. Do the author's statements agree with human experience as you know it? Are they consistent with what you have previously known concerning the subject? By what reasoning does the author arrive at his conclusions? Does he make his points clear? Does he make them follow one upon the other? What evidence does he give? Is it accurate? Is it enough? Is it the right kind? Does it apply? Do you accept what he says because you have understood and become convinced, or merely because you wish to think that what he says is true? If he writes entertainingly, is he as sound as he is entertaining? If his style is dull, are his ideas and facts unimportant or uninteresting? Such questions provide a workable test as to whether a writer is a sound authority on his subject.

A little reflection as you read will enable you to uncover the fallacies in much that passes for scund reasoning. It is often amusing as well as illuminating to collect and analyze these fallacies. Most of them fall into one of two general sorts. We are always putting facts together to make a general idea or rule

of action which tells us what to think of facts as they occur. Consequently, we must always watch how we step from facts to rules and ideas and from rules and ideas to facts. There is many a slip between the two. For instance, perhaps there has been a long dry spell. Then one day you take along an umbrella, and in the afternoon it rains. These are facts. Be careful how you put them together into a rule about the weather. Or suppose we all agree upon the principle that honesty is good and dishonesty is bad. Mr. So-and-So, who is running for governor, makes an eloquent oration in praise of honesty. The principle is sound, and there is no getting around the facts. Does it follow that Mr. So-and-So is the best man for governor? You will not always find it so easy to detect the fallacies in what you read, but if you wish to make any approach to confidence in your authorities, you must constantly subject them to such scrutiny on the part of intelligent common sense.

You are now ready to complete your bibliographical note. You have already made a card which gives the author, title, date and place of publication of the book or article. You have examined the work in question in order to make a preliminary estimate, and have noted on your card whatever seemed significant. You have also looked up both book and author in order to learn how they are regarded. You are, then, ready to note the result on your card. At this point you may

decide that you do not need to read this particular book or article, and the note on your card goes no farther. Or you go ahead with the book and form your own estimate, favorable or unfavorable, and you note this too. The card, now complete, will probably look something like this:

Thomson, J. Arthur. M.A., LL.D. Professor, Aberdeen.
The Haunts of Life. New York 1922.

b. 1861—numerous technical and popular books on science —ed. *Outline of Science. Who's Who* 1927.

Lectures at the Royal Institution London—many favorable reviews U. S. and Gt. B.—called brilliant popular exposition —*Bk. Rev. Dig.* 1922.

Describes adaptation of animal forms to environment—numerous illustrations—good statement of principles—various "haunts" and forms of life described in popular terms—no technicalities—no detailed account of particular forms.

Long, J. C.
Bryan, the Great Commoner. New York 1928.

Preface cites persons supplying information—Bibliography and sources in appendix.

Well received by reviews as impartial and most complete to date.—*Bk. Rev. Dig.* 1928.

Clear account of B's career as popular leader—takes no stand on his policies—full details from contemporary sources—numerous illustrations, cartoons, etc.—good for account of B's public activities and public attitude toward him.

You will observe that these cards answer clearly certain essential questions about each book or article. Who wrote it? What is it called? When was it published? What do other people think of it? What do I think of it? You will also observe that the cards tell nothing else. Notes of another kind to be made later will recall to your mind the particular facts and ideas about the subject which you wish to remember.

When you have done all this, your bibliography is in working shape. Don't be unduly alarmed lest the making of it should take too much time. A critical bibliography of this sort, if it consists of only three items, is better than an ill-digested, haphazard list of thirty or three hundred. Finally, remember that your bibliography is not yet completed. It may not be finished until your investigation is done. Begin the investigation by beginning the bibliography. The bibliography well begun, begin to read. But return to the bibliography from time to time in order to add new items and new information regarding the old ones.

Select what to read.

Inform yourself of the estimate placed by other people on the authors you read, and make note of what you find.

Form your own idea of the value of each author, and make note of what you think.

CHAPTER IV

GETTING THE FACTS

I

By this time you are well started on your bibliography, and have read at least one book or one article on your list. In this way you have discovered the main facts, the principal ideas and the obvious implications of your subject. In short, the book or article which you have read has opened up the field for you, and has indicated some of the divisions into which your material falls. *The Haunts of Life* has shown you that the subject of evolution must be considered under such headings as heredity, environment and adaptation. *Bryan, the Great Commoner* has made clear to you that a study of Bryan must include consideration not only of Bryan's ideals but also of economic conditions in the Mississippi Valley during the latter part of the nineteenth century. From your first book or article, you will usually obtain a tentative outline or chart of your subject.

This chart, however, is only tentative. It is merely a beginning. If you restrict your analysis of the subject to the topics suggested by the first author you

have read, you will never see very far into it. Don't limit yourself, therefore, to a single source. Consult your bibliography. Read what other authorities have to say about your subject, and analyze their treatment as you have analyzed that of your first author. Compare the topics into which they have divided it with those you have already selected, and fit them together so that the combined topics will cover the material with which you are dealing. Discard the topics that seem superfluous, subdivide those that need to be broken up into smaller units, and recast any that are not accurately phrased. If you follow this procedure, you will soon hit upon certain aspects that, for one reason or another, you will find especially interesting. Thus, as you read author after author, article after article, book after book, you will become increasingly sure of what, for you, is the proper division of your material; and as you become more certain of the principal parts of your subject, you will form a clearer notion of the kind of information you need on each topic. Eventually, therefore, you will read less and less for the purpose of distinguishing topics, and more and more for the purpose of securing specific facts on specific points.

As an aid to analysis, you will find it well to take notes. They will help you to sort out the chief aspects of your subject and to keep them in mind after you have sorted them. But remember not to make these

notes on the cards of your bibliography. Your bibliographical notes record what you know about the books you are using. The notes you are now going to take are to serve as a chart of your subject and as a reminder of what you have learned through your reading about particular features. Start, therefore, with a fresh set of 3″ x 5″ cards. (Small sheets of paper or the pages of a loose-leaf notebook may be used in the same way.) Select a single topic and state it briefly on a single card. Under this heading set down the information you wish to preserve, and at the bottom indicate the source from which it comes.

Since your bibliography will give the essential facts regarding such matters as place and date of publication, you will need to add only the name of the author, the title, possibly abbreviated, and the number of the page on which the reference occurs. When you have made certain that what you have added in this way will take you to the proper passage if you need to turn to it in the future, you will be ready to go ahead with the next card. Continue the process until you have covered all your topics. When you come across information on one of the topics listed, put it on another card with the same heading. Place together all the cards containing information about a particular topic, no matter what the source from which it comes, and file the groups of cards according to the alphabetical order of the words in the headings.

Keep on in this way until you have got the facts you need.

As you proceed to analyze and classify in this manner the material you find in the course of your reading, you will see further and further into your subject, you will mark off its boundaries with increasing definiteness, and you will thus sharpen the outlines of the chart or map which you are making. By the time you have collected all your material, you will have formulated a definite plan into which all your facts have been properly pigeon-holed. Whenever you wish to secure information on a particular matter, you will therefore be able to find it immediately by referring to the appropriate topic in your notes.

Let us see how this scheme works out in practice. You have become interested, perhaps through an exhibit at the library, in writing-materials, and you have selected as your first book an old treatise by Matthias Koops entitled *Historical Account of the Substances Used to Describe Events from the Earliest Date.* From it you have learned that at different times men have written upon clay, bone, ivory, lead, gold, brass, wax, leaves, bark, papyrus, vellum, parchment and paper. These materials, set down as topics on your cards, provide a fairly comprehensive chart of the subject you have chosen. In reading Koops, however, you have discovered that you are curious primarily about the use of paper. As a result, you have selected

for your next book, *The Manufacture of Paper* by R. W. Sindall. It reveals that paper is made from various materials, rags, esparto, straw and bamboo, jute and wood. How are you going to represent these substances in your notes? From an historical point of view, all the topics in your trial chart are equally important. If you maintained this point of view, you would, therefore, have to place all your information about the materials used in the manufacture of paper under the single heading, "paper." Evidently, however, you are now more curious about the substances used to make paper than you are about such things as vellum or parchment. You will, therefore, have to alter your chart. In order to bring your notes into harmony with your present interests, you will need to group all your cards dealing with materials other than paper under another heading such as "early materials" and rank it with your new headings such as "rags" and "esparto." So long as you stick to this chart, you will continue to file under these topics whatever information you wish to preserve. When you need information on any topic, such as "straw" or "wood," you will therefore be able to turn at once to the proper section in your notes.

Or take another case. Since one of your hobbies is the American Revolution, you have picked Claude H. Van Tyne's *England and America*, recently published, for your first book. You have discovered that

it indicates briefly the points of view toward the Revolution maintained in the United States at different times, and that it traces the struggle between the colonies and the mother country as revealed by the relations between similar groups—clergymen, lawyers, diplomats and merchants—on each side of the Atlantic.

What strikes you most forcibly in Van Tyne's attitude is his conception of the Revolution as a social movement. Because you have recently discovered that economic forces are important factors in every political upheaval, you have begun to wonder whether your old picture of the American Revolution as the rising of an outraged people against a stupid tyrant is altogether correct. Reading Van Tyne, you have therefore been attracted especially by his chapter on the rival merchants of England and America, and you have decided to find out what part those of America played in the rupture between the colonies and the mother country. Skimming through this chapter again, you conclude from Van Tyne's treatment of the matter that the subject comprises such topics as the Navigation Acts, monopolies, exports, imports, duties, piracy, smuggling, inflation of credit, indebtedness to English firms, the Stamp Act, the East India Company, the non-importation agreement, the Boston Tea Party and so on. This will be your preliminary chart.

At this point, your bibliography will take you to A. M. Schlesinger's *The Colonial Merchants and the American Revolution.* With the topics of your trial chart in mind, you will therefore proceed to see what Schlesinger says on various aspects of the subject as you now comprehend it. Before you find many facts bearing on the Navigation Acts, monopolies or smuggling, you will discover that the colonial merchants attempted to turn to their own profit the indignation aroused by the restrictive measures of the Royal Government, and that the masses eventually took control of the movement out of the merchants' hands. You will find, also, that though the results were the same, this movement did not run the same course in the plantation colonies of the South as in the commercial colonies of the North. In both, however, it eventually led to a clash between the conservative, propertied classes on the one hand and the radical, property-less classes on the other. Obviously, then, to follow out the line of investigation you have begun, you will have to extend your chart by adding not only such topics as "boycott agreements" and "Continental Association" but especially such topics as "conservatism of merchants," "attempts at moderation," "disputes with radicals" and "committees of merchants," topics which reflect the new point of view you have adopted. If you continue on this course, your chart or outline will therefore become fuller on the

colonial merchant than on any other aspect of the subject as a whole.

In the meantime, however, since your family has been in trade in Philadelphia for nearly two centuries, and since you know that among your great-great-grandfather's papers are a number of ledgers and diaries that will help you to interpret the commercial rivalries of the eighteenth century, you have decided that the phase of the subject about which you are vitally curious is the Pennsylvania merchant in the American Revolution. If in the search which you are now going to make for specific facts, you are fortunate enough to discover the accounts and bills of lading preserved by your great-great-grandfather, you may find that, as those of a representative Philadelphia trader, his papers are of absorbing interest.

Pick out the principal parts of your subject as presented in what you have read.

Set down each part as a topical heading on a 3″ × 5″ card, and place under it in the form of a note with the proper references any facts you consider important.

Arrange your cards alphabetically according to the topical headings.

II

By the time you have read and analyzed a number of the books listed in your bibliography, your chart

will be fairly definite. You will know that a history of paper necessarily includes such topics as "rags," "esparto" and "jute." You will know that if your subject is the Pennsylvania merchant in the American Revolution, you must consider the colonial trader's relations with the political and economic movements of the day. You will therefore need to be especially well informed on these particular topics.

At this point you are likely to get into difficulty. Even though you have gone on from book to book in your bibliography, the cards under some of your headings have not accumulated very rapidly. You have not come across very much on the use of bamboo or jute in paper, and you have not discovered much about committees of mechanics or duties on sugar during the American Revolution. As you run through your cards, you wonder how you will ever get enough material on these topics. "The trouble with me," you will probably say to yourself, "is that I exhaust my sources too soon." What that means, of course, is that you should now learn how to get the facts you need to build up the various parts of your subject. Let us see how you can do this.

The most effective procedure is to begin with a specific topic such as "rags" or "duties," and after you have secured the information you want, to go on to a related topic like "jute" or "smuggling." As you have run down your subject as a whole through the usual

works of reference, run down now in the same way each topic which you need to build out. Don't be discouraged, however, if you find nothing dealing specifically with a particular topic. There may be no books on rags or smuggling, but there may be books on writing or printing or libraries or museums or on the navy in the eighteenth century or the West Indian trade or the Navigation Acts or even the Continental Association. Try these one after another to see if they will serve your purpose. In each case examine the title page to determine whether there is a descriptive or explanatory subtitle that will show you whether to search farther; run through the table of contents; look at the headings of the various chapters; above all, study the index. Since you are searching now not for facts in general but for facts that bear immediately upon a particular phase of your subject, consult rapidly a large number of books or articles, the more the better. Don't limit yourself to two or three or even to a dozen.

When you find what you want, do as you have done before. Read, analyze and classify. As you have distinguished the principal parts of your subject as a whole, distinguish now the chief aspects of each topic. Subdivide as you have already divided. Often you will find the subdivision made for you. If you turn to the index of the book you have selected, you will discover that under most topical headings are various sub-

ordinate headings which you can use as a preliminary map of the ground covered by the topic with which you are dealing. You can then begin to build out the topic by exploring each of these headings. If you are still nonplussed as to what you should look for, you can always fall back on the six interrogatives of research, *what? where? when? how? why? who?*

For example, you may have become interested in the causes which have brought about the depopulation of rural New York and New England. Among the headings in your notes, therefore, will undoubtedly be one entitled "competition." Now suppose that you proceed to build out this topic. Before long you will discover that you have mapped it off into such subdivisions as "soil," "fuel supplies," "mineral resources," "railroad facilities," "markets" and so on. Suppose, also, that in your quest you come upon a reference to a deserted village in the Adirondacks. Since it promises to be a typical instance, which you may use in illustration of the kinds of competition which have led to the depopulation of the countryside, you therefore make it a heading in your notes and set out to find what you can about it that will be useful to you in explaining other cases. What, then, do you want to find? This question may prove difficult to answer, for the reason that you don't know what there is to be found. Fall back, therefore, on your interrogatives.

Your first question will naturally be *what?* What was this deserted village? It was, you discover, a community built up through an industry that failed and left behind it ruin and desolation. Evidently, therefore, it is likely to throw light on some of the causes of depopulation; and so you go on to your next question. *Where* is it located? So many miles, you read, from Port Henry and Lake George, though this fact means little or nothing to you at this moment; and again you go on to the next question. *When* was it built? Fortunately, you learn almost to a day when the first foundation was dug and when the last shingle was nailed down. All this is well enough, but even your *what, where, when* do not carry you very far into the heart of the mystery. One of the facts you want to unearth is *how* this particular village happened to rise in the wilderness; and eventually you find that it happened because of the deposits of iron ore in the neighborhood. You are now picking up the scent, but naturally you want to know *why* the village was abandoned. Why is it slipping back into the forest? At first you will not get a final answer; for the final answer is a long story, a story that reaches west to Wisconsin and south to Pennsylvania. It is the story of the development of a great industry beyond the borders of New York.

In this community, you read, were formerly men and women, fifteen hundred of them, working and

hoping. *Who* were they? What became of them? Though such questions come tumbling in upon you, you brush them aside because you are curious now only about competition. The fortunes of those who came and went do not interest you at all. So you rule them out of your picture and turn back to your other questions. You have had a *first* answer, but now you want a *second* answer. Back, then, you go to your *what*. To you this abandoned village has become something more than a few ramshackle buildings near a deserted mine. It has become a group of crumbling tenements an eighth of a mile from certain definite, particular shafts. For the time being you have forgotten the village and are thinking only of the mine that created it. What kind of ore, high-grade or low-grade, did this mine contain? How did it compare with that found elsewhere?

Again, you see, the trail is getting warmer. Consequently, you proceed with your second question, *where*. You know now that the village is near Port Henry and Lake George, and you realize that these places are far from Pittsburgh and Lake Erie. One question leads to another, and each means more than the one that preceded it. So with your second *how*. Was the enterprise a mere whim, an unlucky guess, or did it fit in with the progress of the iron industry? When you have answered this question, you will be on the road toward your goal. You will not reach it, however,

until you follow up your second *why* as well. Why did such a disaster occur? Was it due to depletion of reserves, discovery of richer ore bodies in the West, lack of transportation facilities, distance from markets or mere mismanagement? At last you have reached the essential question, the question that will point you to the exact information you need. You have struck the lead that will take you not to one kind of competition but to several kinds of competition responsible for the depopulation of rural New York and New England.

Though your six scouts, *what*, *where*, *when*, *how*, *why*, *who*, may not always bring you the facts you need, they will at least show you where to look for what you may require. Suppose, for another example, that you are studying the project for a great dam in the Boulder Canyon of the Colorado River. In your analysis of the subject, you have come across numerous references to similar projects which have been successfully carried out. One of these is the Assuan Dam on the Nile. Because of the light it may possibly throw on the problem with which you are concerned, you head one of your cards, "Assuan Dam," and post off your scouts to see what they can discover. *What* is it? *Where* is it? *When* was it built? *How* was it built? *Why* was it built? *Who* built it? To each of these questions you will want an answer, and unless you are unlucky, you will get one without much diffi-

culty. A *first* answer is usually easy. But in this case you will need a *second* answer as well. Back, then, you will go once more to the questions you have already asked. If you are concerned with the use of concrete, you will certainly want to know more about the *how*. You will hardly be satisfied with the statement that the Assuan Dam is built of cement. You will want to know *what* cement was used; *where* it was manufactured, whether in England or in the United States; *when* it was made, before, during, or after construction work began; *how* it was manufactured; and *why* it was selected, whether for its durability or for its cheapness. In the end, indeed, you may discover that what you are curious about is its durability, and your final quest may be an investigation of this particular aspect of the Assuan Dam. Such is the procedure by which a writer builds out his topics.

Build out your topics by taking up one at a time and trying to find out the most significant facts concerning it. To do this, ask the questions, What? Where? When? How? Why? Who?

Make note of the answers under suitable topic headings.

III

Up to this time we have been considering how to get facts rather than how to record them. You had

now better consider your notes themselves. Though it is true that the more carefully you take them the less you will need them, you can hardly rely on your memory. Memory, at best, plays us many a scurvy trick. You may be able to count on it for general impressions regarding the use of paper or the significance of economic factors in the American Revolution, but you certainly cannot count on it for many of the minute details upon which you are going to ground your ideas. Watch your notes, therefore, as carefully as you watch the indicators on your car.

As indicators they ought to be correct. If they are not correct, they will be worse than useless. You can seldom mend them later. Be certain, therefore, that they are correct at the time you make them. When you close the book in which you have been prospecting, a book you may have found hard to get, you often have to close it once and for all. Consequently, before it leaves your hands, you should verify the references you have made to it. Even if you believe that you have stuck like a burr to the originals, don't trust yourself. Make sure. Your notes are the foundation of your ideas. If for any reason they are not accurate, your thinking will always be confused, and in the end your whole article may collapse.

There are various kinds of correctness. There is a correctness that is literal. Have you entered names and dates as you found them? Have you copied quo-

tations exactly? Letter by letter, comma by comma, have you reproduced the originals? You will undoubtedly answer yes. At this stage in the game, such things seem childishly simple. But if you check your notes and verify your references, you may be amazed to discover how many mistakes you have made, how often a 7, for instance, has taken the place of a 9, or a *that* of a *the*. Even mechanical correctness can be secured only at the price of conscientious carefulness and skilful correlation of hand and eye.

There is another kind of correctness still more difficult. Truth in form is only a beginning. Truth in spirit is infinitely more important. You may have cited exactly every figure and every word you have borrowed from Sindall or from Schlesinger, but your notes may give a totally misleading statement of the value of jute in *The Manufacture of Paper* or an altogether false impression of the status of the colonial merchant as portrayed in *The Colonial Merchants and the American Revolution*. Even when you do not intend to do so, you can easily make a subject appear in a distorted light. Because you do not like to think that certain facts are true, you may suppress them. Because you hope that certain conditions may arise, you may not mention certain other facts that seem to point to different results. Because you are attracted or repelled by this or that, you may exaggerate or minimize. Silence upon one phase of a subject or un-

due emphasis upon another leads to that kind of dishonesty in which you begin by cheating yourself and end by cheating others. Only by keeping watch over your emotions can you be true to the spirit as well as to the letter of your authorities.

Your notes must be clear as well as correct. Unless they are clear, why waste time over them? What shall you gain if you spend a couple of months digging in a library and then find that you can make nothing out of what you have dug up? You may, to be sure, have a few scraps, an occasional date or a witty epigram, tucked away in one of the corners of your mind. But after you have put in many an afternoon in the library, you will feel rather foolish to discover that your cards are about as intelligible as a Chinese puzzle or an Arabian papyrus. Before you go too far, turn back and make sure that your notes are clear.

They ought to be mechanically clear. Have you written so that you can read your writing? If you have used abbreviations—and you can hit upon many that will lighten your labor—do you know what they mean? In arranging your material, have you followed a definite scheme, or have you scribbled away in what seemed the easiest manner? Have you put only a single heading on each card? Have you kept your topics distinct? If your subject is the history of paper, have you been careful not to confuse straw with

esparto? If it is the Pennsylvania merchant in the American Revolution, have you been careful not to let sales of salt in 1775 overlap those in 1778? Have you begun always in the same place on the same line? If not, you may fumble when you come to consult what you have written. Finally, have you put the references to your sources always in the same corner, preferably at the lower left hand, where you will have room for the name of the author, the title of the book or article, and the number of the page?

Attention to such matters will do much that needs to be done, but not all. You must be able to understand your notes long after you have made them. While it is still fresh in your mind, even a slight suggestion, a phrase or a word, may be sufficient to recall your material. The situation may be different in a week or a month. What once lit up a whole series of facts and ideas may not strike a single spark. The reminiscent force of what you have written may have faded out completely. You had better make certain, therefore, that your notes are clear enough and full enough to be intelligible not only at the moment when you take them but also weeks or months later. They must be sufficiently comprehensive. If you have not included enough in each note to bring back everything you intended to recall, the time you spent making it might more profitably have been spent on something else.

On the other hand, your notes should not be too copious. They should not be essays. If too lengthy, they will defeat their purpose. Boil down, therefore, what you want to say and skim the froth from the top. Don't hesitate to throw out what you don't need. Read and re-read before you start on your cards. Analyze what you have read into logical units; select the topics that meet your needs; pick out the details you wish to record under each heading. Master your material or it will master you, and you will be swamped by the very multiplicity of your facts.

One of the best means of avoiding this catastrophe is to use your own words, if possible, for what you wish to preserve. If you have stated in your own words what your author means, you are not likely to go wrong. Unless you state for yourself what you think he is trying to say, you can never be certain you have understood him. For this reason never rely on any phrasing but your own. Your own words will mean more to you than the words of anyone else can ever mean. They are part of you, and you will always know to what they refer.

This habit can easily be picked up. Deciding what to include in your notes will be much more difficult. Unless you are careful, you are likely to accumulate a mass of facts and quotations that will merely lumber up your desk. Any one can make a good *note*. Few people can make even passable *notes*. Often notes

so-called are not notes at all. They are notes only when the facts which they contain have been chosen for a purpose. That purpose is the subject in hand. How well have you kept to your purpose? Have you stuck to your subject? Have you covered all the important topics? Have you sorted every bit of information under the heading where it belongs? Have you stacked your lumber into piles for the different parts of your building? Have you picked some for the entrance, some for the first story and some for the top; or have you jumbled everything—planks, studding, trim and shingles—into an indiscriminate heap, which you will have to pull to pieces again before you can start to build?

Facts, of course, are what you have set out to get, and you must make sure that you have got them. Don't let your authors escape the test of experience. Have the things they report been seen, heard, tasted, felt, counted, timed, measured, weighed? Have they been verified? Can they be verified? But something more is also necessary. Facts alone mean nothing. Only when they are classified and related do they become significant. What you are going to do with your facts is even more important than the facts themselves. For this reason it is well to see what others do with them. You may either accept or reject the interpretations of others, but you cannot afford to ignore them. Ideas, indeed, are the vitalizing influences

in every book and every article. They will set your mind awork in this direction or in that, and they will help you to determine the attitude that you will finally adopt toward your facts. Not until then will you know the exact facts which you must get.

Make sure that your notes are legibly written, accurately and concisely stated in your own words.

Make sure that your notes cover all the important topics of your subject.

Make sure that each note stands by itself under the proper topic.

CHAPTER V

SEEING FOR YOURSELF

I

You are now immersed in books. Your bibliography grows longer, your mass of notes thicker and thicker. But does all knowledge come from books? Can you learn nothing from experience? The question answers itself. Books do not take the place of experience, though they do help to make it mean more. Before any book can be written, somebody must have had experience, and after books are read, those who read them will have experience again. People observe facts in order to think and write about them, and they think and write about them in order to discover new and better ways to observe them. You can enjoy facts, suffer from them, even fight over them. But you can also pay attention to them, look at them, listen to them, get the very taste, smell and feel of them. You can count, weigh, time, measure and pick facts to pieces. You can use all your wits to find out what they are doing, what they are likely to do, and what can be done to them or with them or about them. This is what it means to observe the facts, to learn

by experience. Obviously the more you observe and the greater your experience, the more you will know. The more you know, the more you will be able to observe, and the more your experience will teach you.

For instance, back in 1899, Americans found themselves in Cuba, compelled to restore order after war and revolution. One fact about Cuba was that every now and then people died by the thousand of yellow fever. Another was that the mosquitoes were thick and stung everybody alike, yellow fever or no yellow fever. But nobody connected mosquitoes with yellow fever. Nobody really knew what to connect with yellow fever, nor what it meant except, as a rule, sure death. So the government brought a man down to look at Cuba, to observe and investigate and report—not just any man at all, but a man well informed on tropical diseases. He came and observed the climate, the houses, the streets and the drainage. He observed the people sick, dying and dead from yellow fever. He took pains to observe all sorts of things, even the mosquitoes. But when Walter Reed completed his observations, he had seen what nobody had ever seen before. It is said of a man in a certain poem that

> A primrose by a river's brim
> A yellow primrose was to him,
> And it was nothing more.

Not so with Walter Reed. When he looked at a particular kind of mosquito, it was a great deal more than just a mosquito with a sting. He reported how much more it meant, and to people living in the tropics that mosquito has looked different ever since.

Walter Reed was an expert, that is, an experienced student of the literature of his subject and an experienced observer of the facts. He knew a great deal about tropical diseases before he went to Cuba, but as Paul de Kruif shows in *Microbe Hunters*, all Walter Reed's knowledge merely made him gluttonous for more knowledge, especially such as he could be certain of by the evidence of his own senses. Now you, too, on a more modest scale but in precisely the same way, are on the road to becoming an expert. You have begun to master the literature of a subject, mosquitoes, it may be, or the manufacture of cheese or chain store merchandising or the art of water color painting or the poetry of Masefield. Since the method is fundamentally the same, the subject does not matter. The time comes, therefore, when you should try to put what you have learned from books to the test of experience and observation. You had better go now and look at the primrose or the mosquito you have been reading about, and see whether it is still just a yellow primrose or a mosquito or something else besides. Put your present knowledge to work. Think up some way by which you can

do some original investigation, make some first hand observation of the facts of your subject. In other words, *go and see for yourself.*

In order to see for yourself, you will have to bear certain points in mind:

First of all, you must know what sort of facts are dealt with in your subject. This is a matter you can determine by scrutinizing your authorities carefully in order to see what facts they observed in order to arrive at their conclusions.

You must then discover where facts of the same kind can be observed in your vicinity and contrive an opportunity to observe them. This you will probably find is not so difficult as it sounds.

When you are face to face with the very thing, the very facts and conditions you are concerned with, you must know how to look at what you came to see. You must know what questions to ask. You must be ready to invent questions on the spot. All this may puzzle you at first, but will not prove to be impossible if you are normally quick-witted.

Finally, you must be ready to make use of your encounter with the facts, to report on your observations.

The precise result, the particular information which you will secure, no one can exactly foretell. You can at least expect the added zest which is the result of personal contact with the kind of facts and the kind

of problems you have been reading about in books. Unfortunately, as you may know, we can become so absorbed in books and in our own ideas as to lose our sense of the realities with which books and ideas are supposed to deal. The primrose was, to be sure, just a primrose to the man in the poem. But to the botanist it may be nothing but a variety of the genus *primula*, to the chemist merely the shade of pinkish yellow that he can imitate with a coal tar dye, to the artist just a decorative touch to his picture and to the farmer only a weed. Meanwhile there is the primrose blooming away by the river's brim, and you had better look at it yourself. It may mean something quite different to you.

What in particular do you wish to see? What kind of facts is your subject concerned with? Walter Reed went to Cuba and observed all the conditions surrounding yellow fever. The man who studies glaciers goes, if he can, to look at mountains where glaciers exist or have existed, but he also watches snow, how it thaws and freezes, and perhaps he contrives some special way to observe the viscosity or thick syrup consistency of ice. The man who is interested in farm management looks at farms. The man who is interested in the drama goes to the theatre and sees plays. The man who is interested in bookbinding examines the binding of books, takes a book to pieces, and hunts up a bookbinder's shop. The man who is interested

in the stories of Conrad will, of course, read the stories Conrad wrote.

You may be puzzled to know how to find any facts like those you have been reading about. There may indeed be difficulty in the case of some subjects. On the other hand, with a discerning eye and inquiring mind, you can often find a world of information of which you had never even dreamed. A city street may be a veritable museum of architecture where you can see almost anything from Greek temples and Gothic churches to skyscrapers. A country roadside on a wet day will show you as much about rainfall, erosion, flood prevention and the effect of deforestation as you will learn from many treatises. The corner grocery can teach you something about the laws of supply and demand, the cost of living and the economic condition of the country. In Molière's play, you may recall, there was a man who was astounded to discover that he had been talking prose all his life. You may be surprised to discover that you have been living among the facts of your subject all the time. The truth is that we are generally so close to facts, they happen so constantly in such numbers all about us, that we have to get away from them occasionally in order to be able to think about them at all. But in thinking and reading about them, we must guard against forgetting that the very facts with which our

minds are busy are perhaps sticking up before our eyes or roaring in our ears.

Thus far we have been suggesting the possibility of going out in person among the facts as you find them normally occurring. This is what you do whenever you go on a field trip, an excursion, an exploring expedition or a sightseeing trip, even if you get no farther than your own backyard. But this kind of original investigation has often to be supplemented by still another kind. The precise facts you want to examine may be rare, or may have happened far away or long ago. What you may find is not the thing itself actually occurring before your eyes but some trace or vestige of its having happened, some monument or remnant, some text or document.

Breasted, in his account of the ancient Egyptians, could not put himself bodily back several thousand years. Writing in 1927 about Walter Reed's fight on yellow fever, Paul de Kruif could not turn back the clock to 1899 so as to go to Cuba and see Reed doing his work. In explaining the significance of *Tom Sawyer* in his *Ordeal of Mark Twain*, Van Wyck Brooks could not visit Mark Twain in the other world to ask what he meant. Breasted had, to be sure, the advantage of his explorations in Egypt, but what he chiefly relied upon for his information were the ruins and relics, temples, tombs, inscriptions, papyri, mummies, utensils and objects of art left behind by the

ancient Egyptians and dug up by archaeologists. De Kruif was familiar with the practice of medicine, but he had to piece Walter Reed's story together out of the written reports left by eye-witnesses. Brooks depended upon his general knowledge of American life and literature, but had to get his first hand information from the written words left by Mark Twain in *Tom Sawyer* and other books. All this goes to show that first hand observation may have to be supplemented by the examination of material remains, documents and texts. The investigator may not arrive in time to see the thing happening, but he may be able to pick up the tell-tale evidence, the fingerprints and footmarks, the confessions and testimonies of the participants. With such clues he can write the detective story which is his account of the subject.

In the search for facts and for documentary and other clues to your subject, there are, of course, certain practical aids. The scientific laboratory may supply you with the equipment for experimenting with facts under conditions you can immediately control. But if you have no chance to use a laboratory or cannot contrive one for yourself, or if your subject does not lend itself to laboratory investigation, there are still other aids. There may be a government experiment station, a model farm or a museum within your reach. An agricultural experiment station may show you in some concrete way the processes of plant-

breeding or the chemistry of soils. A model dairy may let you see how butter and cheese are produced. If your subject is the boll weevil or seal fisheries or mushrooms or the culture of silkworms, a museum of natural history or a zoological or botanical garden may contain something you can examine with profit.

In an anthropological or historical museum you may find examples of many such things as prehistoric stone knives, Indian wigwams, clay tablets from Assyria, Roman swords and American covered wagons. Many American cities now possess collections illustrating local history. Art museums are, of course, invaluable for the study of painting and sculpture, and frequently provide opportunity for the study of other arts as well—architecture, household furnishings, textiles, costumes, pottery, manuscript illumination, the printing and illustration of books. Be on the watch, also, for special exhibitions such as are becoming more and more common, exhibits of modern art, architectural exhibits and exhibits of industrial products like silks or automobiles. Don't forget either the cattle show or the county fair if they relate in an interesting way to your subject. Moreover, factories, department stores, newspaper offices, business houses and public institutions sometimes invite or permit inspection of their plants. To this list of special opportunities for observation many additions could easily be made. You must explore for yourself the op-

portunities around you. You must remember that the usefulness of any such special observation cannot be estimated in advance. Its value will depend partly on the nature of your subject and very largely upon yourself.

Seeing for yourself, then, consists first in trying to find opportunity to become an observer of facts and conditions similar to those involved in your subject. It may also lead to the examination of material remains and original documents. The opportunity for such observation may be found immediately around you in your daily life, in some special institution such as a museum, or in the case of original documents or literary texts, in the library. After you have found your opportunity, the question is how to look at the thing you have gone to see.

After you have informed yourself of the literature of your subject, contrive some way by which to establish personal contact with facts of the kind with which your subject is concerned.

II

In order to get any value out of personal observation you must ask intelligent questions. When you look at a fact, whether it be a field of potatoes, a cantilever bridge, a modernistic painting or a grand opera, you should be able to ask yourself questions

about the thing you are looking at. You should ask questions of other people too, tactful and courteous questions, but questions that will provoke reply. If you do not know enough about your subject to ask intelligent questions, personal observation will soon degenerate into idle sightseeing. You need hardly be reminded how tiresome sightseeing, or for that matter any first hand experience like reading poetry, listening to music, looking at machinery or trudging through art galleries, can be if you do not know how to look at what you see.

How can you tell what to ask? Well, perhaps the chief reason for reading about your subject during the last few weeks was that you should know what questions to ask when you come face to face with the facts. By this time you should have learned where the gold you are seeking is to be found, how to dig the ore out of the ground, how to tell the ore when you see it and how to get the gold out of the ore. These things, whether you go prospecting for gold or for information, have to be learned somehow before you begin. In your reading you have analyzed your subject into its parts, and you have taken notes under separate and distinct topics. The result is a kind of map or outline of your subject. Now, a map or an outline should let you know what to expect when you go exploring. Look over your notes, therefore, and review the points, propositions, aspects of the subject

which you may expect to find borne out by experience. Cast these into questions. Then start out on your observation trip with these questions on the tip of your tongue, and see what answers you get, positive, negative, vague, noncommittal or whatever they may be.

When Walter Reed went to Cuba to see the yellow fever situation for himself, he may not have carried with him a set of notes precisely like yours. But what he knew of his subject was probably arranged in his mind much as your notes are arranged. There were headings like *causes of tropical diseases*, *methods of prevention*, *types of treatment*. Under possible causes he probably classified *microbes*, and under modes through which microbes are conveyed, he probably noted *insects*, *food*, *drinking water*, *clothing* and various other things. When he arrived in Cuba, he had all this in his mind. He knew that he wanted to ask, among other questions, whether insects, food, drinking water or clothing might be the means by which microbes are conveyed into the system and so cause the disease which kills people. He collected, for instance, a lot of clothing from yellow fever patients and a number of mosquitoes which had bitten yellow fever sufferers, and he asked which of these, clothes or mosquitoes, gave the fever. Did men whom he caused to be shut up with these clothes contract the disease, or did those who were confined with the mosquitoes? If it seemed to be the mosquitoes, was

he sure that no other cause unknown to him was at work?

It is sometimes said that the more you know, the more you know you don't know. A better way of saying it is that the more you know, the more definitely you know what more you wish to learn. Make sure, then, that you have some notion, if only a tentative one, of the sort of thing you want to look for and find out when you arrive on the field or in the shop or museum. Your inquiry may be satisfied immediately. But be ready for surprises. The particular question you ask may find no answer. But by asking it, you may turn up the answer to some other question which you had not thought of asking at all, but which is no less interesting and important. You must invent the questions which are suggested by the facts.

That was the way Walter Reed first thought of cross-examining mosquitoes about yellow fever. All the other questions he had asked had left him baffled. Then one of his own assistants, right in a hospital where there were yellow fever patients, was bitten by a mosquito and died of the disease. Had that mosquito previously bitten a yellow fever "case"? When he asked that question, Reed began to get answers which led to a solution of his problem. His previous questions had led to the key question which unlocked the whole mystery. Thus you must begin the work of observation by asking questions which may lead only

to the necessity of immediately inventing others. So questions lead to answers, and answers lead to questions. This is the way of all investigation; this is what gives life and interest to the experience of seeing for yourself. But it must all begin by your asking an intelligent question at the start. Follow that up by others. Be ready with whole salvos and broadsides of them. Ask new and unexpected questions. Drive the facts into a corner and make them give up their meaning. Don't be discouraged if you fail to learn all that you wanted to know. A single inquirer seldom discovers everything. One helps another out. For the beginner especially, it is important to have gone hunting for truth even if he does not bring a full bag of it home.

When you have established personal contact with facts of the kind with which your subject deals, try to get from observation and direct inquiry answers to leading questions which have been suggested by your previous knowledge.

III

The final step in seeing for yourself is making sure that you know and will be able to tell exactly what you saw. The zest and vividness you may have derived from your personal observations are good, but they are not all. You need not merely general impressions

enthusiastically recollected but also precise information exactly reported. You want to be able to say, not "I seem to recollect something like so and so," but "I can testify that I saw precisely this." All of which means that, unless you are an unusually accurate observer and have an unusually tenacious memory, you had better take notes. But take them intelligently. Nothing is easier than to come home with a notebook scribbled full and a head empty or in a whirl. Make note-taking a means to sharper observation and more thorough understanding.

You have already arranged the notes on your reading under topical headings to form a sort of tentative outline or mental picture of your subject. You may not find it convenient to carry all your notes with you on your field trip, but at least look them over before you start. With your topical headings in mind, make mental notes of what you see. Consider whatever disagrees as well as what agrees with the outline or picture of the subject you have previously formed. If you can conveniently do so, make brief written memoranda or reminders of particular points, especially of figures, names and dates, or other matters such as one easily forgets. If you do this, your observations will become more accurate and useful.

But do not stop there. When you have finished and returned home, check your observations. With the help of your memoranda, go over the experience you

have had while it is still fresh in your mind, and make final notes of whatever is important. Fit each fact or set of facts into its proper heading, or if necessary invent new headings to fit. Thus you will insure an accurate record.

What may be fully as important for your purposes, even though the net result may seem slight, you will probably have acquired a clearer insight into your subject and into the problem of investigation which it presents. Always make note-taking serve as a tool, never as a crutch. When you see and think you understand, take notes, but don't take notes when you do not understand or when you merely hope to understand afterwards. Always remember that the understanding which is gained by the effort to take intelligent notes will be far more valuable than the notes themselves. The random, unintelligent, undirected notes of a person who scribbles in a sort of panic lest he be found ignorant are worse than useless, because they not only do not remove ignorance but actually promote confusion. To be ignorant is not necessarily a disgrace. The only disgrace is to stay ignorant and grow befuddled.

The notes just described are your written record. In some cases you may wish to add illustrative material of one sort or another. A diagram, a photograph, a drawing, a model, a print, a specimen, a concrete exhibit or graphic representation may often serve

better than any number of written notes. Be on the alert for such material while you are making your observations. Feel free at any time to use as much of it as seems suitable. Never, if you can help yourself, try to do with words what can be done better by some other method of reproducing experience.

Direct observation, personal contact with men, conditions, animals and things, a factory, a shop, a coal mine, or a work of art—this is an experience which often has an interest in itself, apart from its relation to a subject in its broader aspects. We like to hear of a scientist's expedition to central Asia, however we may feel about his general theory of the origin and development of man. We like to go to the stock market with a financial expert, to the theatre with a critic, to a baseball game with the sporting editor. Everyone values the expert's account of a particular experience or his judgment on a particular situation; and for that reason he is always being asked to report what he has seen. Therefore, as you have become in a way an expert, write now a report of your personal observations.

The form of your report cannot be strictly defined for you by anyone else. In general we should like to know where you have gone, what you have seen and what you think of it. We should also like to hear any adventure you may have had in the carrying out of your investigation, any special excitement or pleasure.

Try, therefore, to write an account of what you have done which will in its own way answer our questions and our interest in your personal feeling and reactions. It is hardly necessary to say that the nature of your subject will be the principal factor in determining how you will proceed. The story of a trip to the cattle yards will be one thing. The interpretation of a particular picture or a symphony or a novel will be another. The description of a laboratory experiment will be still another. Shape your report accordingly. In any case endeavor to say: This is what I looked at; this is what I saw in it; this is what I thought and felt about it; this is what happened to me while I was doing it.

While seeing for yourself, make mental notes or tentative memoranda which you can immediately afterwards incorporate in your notes under proper topical headings.

Collect any maps, drawings, specimens or other concrete illustrative material which may be useful.

Write a report of what you have done in the form best suited to your material and to your experience.

CHAPTER VI

TRYING OUT YOUR PUBLIC

I

Before you start to present your subject to your public, you had better learn something about them. Though they may know little of what you know, they may know something else that bears upon your problem. At any rate, they doubtless think they know more about it than they do, and they doubtless hold to opinions you regard as erroneous. You must understand the public you address if you are going to make them understand you. For this reason, it is well to try them out before you begin to shape your material. In two ways, they can be of immediate service. They may know something about your subject which you have not hit upon. You may, furthermore, in learning how they look at the matter, come to see it in a new light, or to be surer of your own point of view. As soon as possible, therefore, begin to explore the minds of the other members of your English class in order to discover what, if anything, they know about your subject, and to determine how you on your part can handle it effectively when you set out

to make them understand what you have to say about it.

The writer is always trying out his public, not in one way but in many ways. Whenever you are struck by the importance of a fact or idea, you cannot help telling others about it. You tell your relatives, your friends and even strangers if they will listen to you. Later on in life, you may run off to report your discoveries to experts who have a special interest in such matters. You will even talk with editors and publishers. Indeed, until you actually sit down to write, you will talk about your subject in spite of yourself to almost anyone who will listen to you.

If you disregard the attitude of your listeners, and ramble on indefinitely whether or not they understand or like what you say, you will bore or antagonize them to such an extent that you will be laughed at or shunned by the very people you are most anxious to interest and attract. But if you are alert to the way people respond, you will be amply repaid for your pains. You will learn to say the right thing at the right time. You will learn when a dry, bald statement will be effective, and when your thought must be developed by familiar figures and homely illustrations. However much you may know about your subject, you can hardly hope for success unless you also know something about human nature. Only through a study of the way in which men and women

feel and act, can you learn how to impress your ideas upon the minds of your public.

Your public for the time being is your class in English. Though it is a class, and your classmates are willing to be experimented on, your problem is not essentially different from that of any other writer. You must win your audience precisely as you or any other writer would win any other audience. Ask yourself, therefore, what your public knows about your subject. If there is one thing that people resent above every other, it is being told what they already know. Nothing is more deadly than to listen to the obvious. Get up at the next college assembly and try to tell your classmates that in football eleven men attempt to carry a ball across a line guarded by as many opponents. How long will they listen to you, or how long will they even let you continue? But try another tack. What if you tell your audience, composed of football fans, what Tad Jones said to you last week about the lateral pass at the Harvard-Yale game? They all know a great deal about the lateral pass; but they also know that Tad Jones has a trick or two of his own. His name will rouse even the sleepiest. From their point of view, the latest tip from a popular coach is sufficient excuse for a speech which may be poor in other respects. The attitude of the audience, friendly, hostile, or indifferent, has much to do with the success of every speaker or writer.

In deciding what to include in your article, you will do well to consider not only what your public actually knows about your subject, but how it feels on the matter, and what it mistakenly thinks it knows. Most people think they know something about almost everything. We meet one stolid Englishman, and forthwith decide that no Englishman has a sense of humor. We read an article on the plight of the railroads after the World War, and immediately jump to the conclusion that government operation of public utilities is a failure. Though we know nothing at first hand about Soviet Russia, we think we know it means free love, communal homes and many other things Americans detest. Though we know almost as little about the tariff schedules on textiles, we think we know, if our fathers are cotton manufacturers in New England, that higher duties are needed to save the industry. Many of our most cherished opinions rest on flimsy foundations of ignorance or prejudice.

As a writer you cannot disregard what the members of your English class, which is your public for the time being, know or mistakenly think they know about your subject. For this reason, you had better inquire a little into their mental attitudes. From what part of the country do they come? Are they Southerners or Westerners? To what occupational groups do their parents belong? Are they farmers or mechanics? Are they lawyers or physicians? Are they bankers

or business men? To understand your public you must obtain in some way the essential facts concerning the geographical origin and social background of your classmates. This information can occasionally be secured from the college records. Better yet, the members of your class can make up a biographical dictionary, which everyone will be free to consult.

A sound estimate, however, requires not only knowledge but also tolerance. Against prejudice of every kind you must be constantly on guard; for you are exactly like your classmates. You, too, have your vistas of misconception. If you are a New Englander or a New Yorker, are you sure that your idea of the South is not a libel, or that your picture of the West is not a caricature? Is the South merely *Uncle Tom's Cabin* or *Colonel Carter of Cartersville*? Is the West merely *Roughing It* or *The Call of the Wild*? Are these the ways in which you interpret the facts which you have garnered in your statistical harvest? If so, you had better see to the proverbial beam in your own eye before bothering about the mote in that of your public.

Consider, for instance, the racial groups represented among your classmates. They may be Scandinavians or Italians, but what do you know about either? You may be one of those who merely think they know that all Swedes are dull and that all Italians are treacherous. Are you any wiser in your un-

derstanding of people of different occupations or economic levels? Have you ever lived on a cotton plantation or a cattle ranch? If your father is a banker or an accountant, can you appreciate the attitude toward marketing and transportation of those who have fought the boll weevil or have branded a steer? Can you look at labor unions from the point of view of garment workers or coal miners? In other words, to know any public, you must learn to know how other people think and feel even when you disagree with them; and you must learn to know yourself. This knowledge is quite as important as knowledge of your subject. You, too, are a mixture of ignorance and prejudice. Upon your ability to overcome your own ignorance and prejudice will depend in large measure your success in overcoming the ignorance and prejudice of your public.

When you have decided what your public is really like, turn again to your material, the jumble of facts and ideas out of which you have been trying to get some kind of order, and rearrange your notes in the light of what you have learned. You are now concerned not with what you have accumulated but with what you ought to use. You have found that your public knows certain things and on the other hand does not know certain other things. What can you make it recognize as fresh and significant?

You have also discovered that the members of your public are ignorant about certain matters and prejudiced about certain others. They know, and they only think they know. At any rate, you have discovered that, even when there is no disagreement about the facts, not everyone draws the same conclusions from them. As a writer, you must determine, therefore, not only what is new in what you have to say, and likely to tickle the palates of your audience, but also what is unpleasantly surprising and likely to taste rather bitter. What do you think your public will regard as contrary to experience, as ridiculous, dangerous or even indecent? Where are you likely to clash? Where do you need to examine your facts from a new point of view?

Finally, do not forget your subject as a whole. Remember your own point of view toward it. What to you is the heart of it? What to you is the most significant thing about it? What to you does it really mean? With such questions in mind, look again at your public. What do they regard as the core of your subject, its significance, its essential meaning? Learn to know your public as you know your material, and you will be on the way to overcome ignorance and prejudice in yourself as well as in your readers. You may thus discover that you have not understood your own subject as well as you thought. Trying to make others

understand is one of the best ways of making matters clear to yourself.

Study your public, that is, your English class, in order to discover its probable attitude toward your subject.

What does your public already know, what does it mistakenly think it knows and how does it merely feel about the subject?

II

There are several devices which you can use to discover what your public knows or mistakenly thinks it knows, or what it feels about your subject.

One, of course, is conversation. By this time you have doubtless made friends with those whose tastes coincide with your own. This group will become the nucleus of your public. With a little tact, you can bring its members together in the lobby after class, in the cafeteria or in your room over the week-end. If ever you can be free and easy, you can be free and easy now. But the first move is yours. You may never before have tried to talk seriously about anything of importance. You may still be afraid of your classmates. But if you are full of your subject, you will not have much difficulty. Indeed, you will probably be surprised at the eagerness with which your guests

will pick up your words and at the skill with which you in turn will pick up theirs.

Remember that conversation is not a monologue. If you insist on doing all the talking, you will not be much wiser than you were before; and you will have fewer friends. The test of a good conversationalist is to make people talk, and it is usually possible to make people talk by talking about the things that interest them in their work and their play. Like yourself, your classmates have hobbies and ambitions, and the more you can find out about these, the better you will get along. Once you find yourselves on common ground, the discussion will take care of itself. Like a tennis ball, the subject will fly back and forth between you. Each will gain in skill from the other's service. Eventually, if you stick to the game, you may even forget that you are an amateur and play up to your opponents like a professional.

Unfortunately sport of this kind, delightful and valuable as it is, suffers from a serious danger. The players usually have fewer facts than ideas to toss into the fray. As a result, conversation under such circumstances often degenerates into an orgy of opinion in which there is more feeling than knowledge and more sound than sense. It will, of course, sharpen your wits. It will help to crystallize your ideas. But you should seek for something more solid. Don't be content with trying out the members of your public

who merely feel rather than know, and talk rather than think.

Go out and interview those who know as well as feel, and think as well as talk. Some of your acquaintances are likely to be more generously provided with knowledge and more richly endowed with intellect. If you are curious about the Japanese beetle, there may be among your classmates someone whose father is an entomologist engaged in the desperate task of stopping its deadly march. If you are curious about the manufacture of radio sets, there may be among your classmates someone else who knows how antennae and amplifiers are constructed. Such people are also a part of your public, and you will have to try them out as well as the haphazard dozen who congregate in your room or in the dining hall to talk over sports or social activities. Though they may occasionally furnish you with a bit of out-of-the-way information that may light up your subject in the most unexpected fashion, you will not approach them as you have approached the specialists whom you may have consulted in connection with your field work. You are now your own specialist. You are interested in these people because you want to learn what they think and feel about your ideas, how they take your interpretation of your facts.

Since, because of their definite knowledge, they may be able to trip you up at an inopportune moment,

you had better not overlook them. Your conversation with them ought to mean more than your conversation with any other group. But before you can talk with them, you will have to find them. Unless you are lucky, they will not be among your intimates. You may not even know them except by name. If you are going to try them out, you will have to pluck up your courage and tell them so. But this should not be difficult. Your subject will be your best introduction. Once you know them, it should not be impossible to contrive an opportunity for conversation.

Whether you succeed in bringing a number of these people together, or whether, as is likely, you have to content yourself with a series of individual interviews, do not forget that there are certain preliminaries which you cannot escape. The place must be right, and the time must be right. If you are going to get along, you will have to observe the conventions of social intercourse. But as soon as your prologue is over be ready to take advantage of openings as they occur. Have your questions on the tip of your tongue. Don't parade them; but when you have a chance, use them. Above all, be tactful and be courteous. If you can establish the give-and-take of friendly conversation, in which conclusions are swapped and opinions matched, your interviews will be as happy as your less formal discussions.

Both of these methods—conversations and inter-

views—you will find essential in trying out your public. You may also find it helpful, if your instructor is able to provide opportunity, to supplement them by a hearing in class. At such a hearing you will state your subject and then ask for comments on it. You will talk in order to make others talk. A hearing of this sort will consist of a short speech of five or ten minutes followed by a general discussion of the points brought forward. Since your speech is primarily an introduction, don't try to cover the whole of your subject. Choose some aspect of it that is novel or controversial. Don't begin by talking about yourself, by excusing yourself for knowing so little or by explaining why you selected your subject. Begin by indicating clearly the point you wish to make concerning the subject, and then make it. Give your hearers a few significant facts, build up your idea by illustrations, suggest your conclusions, and drive everything home by adroit recapitulation. End while you can make your audience believe you have something more to say, while their appetites are still keen. When you have finished, stop and sit down as if you had done what you set out to do. Don't slump back into your seat as if you had just been thrashed.

Possibly when you start to make your speech, to do more formally what you have been doing less formally in your interviews, you may be so taken up with the way you feel that you will not be able to

think much about the way your public feels. Your hands and your feet may loom larger than the freshman from Cleveland in the first row or his friend from San Francisco in the last. Don't be discouraged, however, before you begin. If you know what you are talking about, you will be pleasantly surprised at the ease with which you will get on.

Appear confident whether you are so or not; you will soon cease to be afraid. Stand square and look your audience in the eye. Watch the expressions on their faces and even their attitudes as they sit alert or stir uneasily in their chairs. See how they take what you say. Try to discover how you had best approach them to compel them to regard your subject as you regard it. When you are ready to begin the hearing, which will really be an extension of your conversations and interviews, don't encourage a formal debate with two or three on a side. Try to induce as many of your classmates as possible to take part in the discussion. Since you have sized up those who know and those who merely feel, you can now consider the class as a unit with a temper of its own. The more who talk, the better. Fight shy of the monopolists. Watch those who say little. Sometimes the candidate who receives the noisiest welcome receives the fewest votes. Even if it is almost inarticulate, the silent majority among your classmates may determine the response of your public. Unless you can interest or

convince these silent ones, you are going to fail. Draw them out, therefore, whenever you have a chance. After you have thrown the hearing open, try to lead the discussion into channels where it will not only be profitable but also entertaining and stimulating even to the laggards.

Even if you do your best, you will be lucky if you get reactions from many of your classmates. Some may be too dead-and-alive to bother. Some may be thinking about their own affairs. Some may be too diffident. If the last are pricked into anger by your treatment of your subject, and screw up their courage a bit, they may give you a bad half hour. Don't be satisfied, therefore, with the methods by which you have established direct personal contact with the members of your public. If your instructor thinks it wise to do so, you may find it advisable to send out a list of questions, called a questionnaire, to a selected group. Remember, however, that questionnaires must always be used with caution. Don't make a nuisance of yourself. No one has a right to expect others to give up their time unless he can justify his intrusion; like yourself, your classmates have their own business to attend to. But if your instructor approves, prepare and distribute the kind of questionnaire that may bring you the knowledge you are seeking. If you can answer some of the questions yourself by referring to the class dictionary, so much the better. You will be

more likely to obtain the information you need. What you want to know is the attitude of your public toward the facts you have made your own. Include, then, only questions which will lead to answers that are likely to reveal their attitude.

Consider very carefully how many questions it is wise to ask. Try to put yourself in the place of those to whom you are going to submit your inquiries. How do you feel when questionnaire after questionnaire comes tumbling in upon you while your assignments in French or Mathematics are staring at you from the top of your study table? Do you answer them all? If not, which ones do you choose? You choose those that are least formidable looking, those that are relatively brief, and if you do not toss the others into the waste-paper basket, you leave for a day that never comes those that seem to require too much exertion. Be guided, then, by your own experience. Limit your questionnaire to half a dozen points and, if possible, cut down even this number. If you cannot cover all the essentials, make out several questionnaires and try them on as many cross-sections of your class.

But the sending out of your questionnaire will not complete the inventory which you are taking of your public. When you get back your forms, you will need to strike a balance, a job that requires both care and imagination. You can, of course, easily tabulate your results. You can tell exactly how many of your class-

mates have lived on a cotton plantation or a cattle ranch, but statistics are often dangerous, and unless you remember what you have already learned about the people to whom they refer, you may make many a mistake.

Try out your public by conversing with your classmates, by interviewing those who have special knowledge of interest to you, by holding a hearing at which you will address them briefly on a limited aspect of your subject, and by sending out questionnaires concerning their background and attitude.

III

Now that you have tried out your public, what do you think you have accomplished? As you look back, do you feel that you have succeeded? How did your public respond? Did you get the results you wanted? Did those whom you picked as representative seize upon your facts? Did they understand your ideas? Did they accept your conclusions?

There are more particular questions that you will want to put to yourself in this connection. You have tried conversations and interviews, hearings with speeches, and questionnaires, and you will want to take stock of your technique. If you cannot see yourself as others see you, you can at least see yourself in others. When you have a chance to sit on the side-

lines and watch your classmates trying out *their* public, notice how *they* play the game.

In conversation, at least, you will have plenty of opportunities. When and how did your host start the discussion? Did he wait for an opportune moment when the subject seemed to spring up like a hare before the hounds, or did he pick it up and throw it at his guests to the consternation of everyone present? Was there an embarrassed pause while they tried to round up their thoughts? Did your host talk as if he knew what he was talking about, or did he stumble along like an automobile on a railroad track? Did he appear pompous or apologetic, or did he meet his guests on an equal footing, asking no favors and giving none? Did he do all the talking and then think that he knew the opinions of everyone else when he knew only his own, or did he prod his hearers into reply with witty sallies or clever repartee? Did he keep the ball zigzagging back and forth? Was everyone alive, keyed-up and invigorated by the fray, or was everyone thankful to reach for his hat? Which is the fairer picture of your own exploratory hours with your chosen public?

When you glance at your interviews, you do not need to sit on the sidelines, because your classmates have interviewed you also. Do you remember the interviewers with kindly feelings? Did they break

into your study just as you were beginning to get your work under way after you had been downtown to a matinee and were hard pressed to get out your assignments for an eight o'clock class, or did they come over and sit down after you had finished dinner and were ready to indulge in a bit of banter? How, too, did they accost you? Did they annoy, repel or attract you? Did A walk up with a hang-dog look, as if he would like to say, "This is a horrible bore, and I want to get it over with as soon as possible," and then proceed to inform you apologetically that he was working on Indian pottery and would like to know whether you have ever seen any of it? Did B come blustering up and slap you on the shoulder as if he had known you at school? Did C sit down easily and before you realized what was taking place make himself an agreeable companion? Did you suddenly discover that you were talking excitedly about his subject and not your own? Did you admire him even when you took issue with him? Did you see clearly his point of view? Without being obtrusive, did he describe his material and his treatment? Did he make clear what he regarded as the gist of his subject? Did he illuminate it for you? Did he reveal the line which he proposed to follow? Do you think you did as good a job?

Important as it is that you should learn to conduct a successful interview—a power that will serve you

well in your business or your profession—it is even more important that you should be able to conduct a satisfactory hearing. In such a case the situation is practically that with which you will be confronted when you are called upon to make a preliminary report to a board of directors or an introductory statement of your researches before a committee of your colleagues. How did you succeed? If you want a basis of comparison, think of the last speaker who conducted such a hearing. Was his statement of the subject understood by everybody? Did he lay his cards, as it were, on the table before his audience and say, "Now, here's what I've drawn. What do you think of it?" Was his manner such as to win approval? Did he appear confident but conciliatory? Did his presence seem to lend authority to his words? Was his voice pleasant and ingratiating, or was it harsh and forbidding? Did he keep the discussion on the right track? When it ran off on a tangent, did he bring it back again? Did he direct it to a definite end? Do you think that he carried away with him a coherent impression of what his public knew and felt about his subject? Did you succeed as well?

Study, too, your questionnaire. Did you get from it the largest possible returns? Are they as large as those that others got from you? Did the forms which you received seem to put too heavy a burden upon you? Did you answer them all? Since your class is

small, and since you knew that you were going to call upon your classmates for the same kind of assistance, you doubtless thought it necessary to be polite. Did you feel, however, as polite as you seemed to be? Under other circumstances, do you think you would have answered the questionnaire? Do you think that others would have returned yours?

Were the forms so arranged that they invited cooperation? Did the writers merely shove them into an envelope without even return postage, or did they in every case enclose a letter asking for your help? Did they suggest that they valued your opinion? Did you feel pleased and complimented at the way they introduced the subject? Did you find it easy to answer the questions? Did they stand out clearly on the page? Were they to the point? Could you answer them briefly, sometimes with a simple yes or no? Did they take you where the writers wanted you to go? Will they give a sound impression of the manner in which you, as a part of their public, are likely to react when their completed work is presented to you? Turn now to your own questionnaire and see how it strikes you.

Turn, finally, to your inventory. Does your report of your conversations, your interviews, your hearings and your questionnaires reflect the meatiness and the flavor of the reactions which you aroused? Does it bring back the atmosphere of the night when your next-door neighbor talked as you did not know

that he could talk? Does it portray the strong common sense and the hearty good nature of the freshman from Indiana whom you first interviewed? Does it indicate something at least of the stiffness of the hearing which left you out of sorts for the rest of the week? Does it reveal the meagerness of the replies to your questionnaire? If not, cast up your accounts once more.

Turn back and examine your own conversations, your interviews, your hearings and your questionnaires in the light of your experience with others.

CHAPTER VII

TAKING STOCK

I

In the course of your reading book after book, the subject has more and more opened up for you. New aspects of it have appeared for which you may have been puzzled to find the right place under the topical headings of your notes. Observation has thrown new light upon special points, and discussion has emphasized matters of interest and importance to your public. As a result you may have found by this time that your information is at one point or another contradictory or inadequate or superfluous or merely puzzling. Stop, therefore, and review what you have done. Check up the sum total of your knowledge. Cast up your accounts and see what, in the light of your whole experience up to date, the subject now consists in, what you really know or can know or want to know about it.

Taking stock of your information is just as important as having the information itself. To know or to have the facts somewhere in your notes is not enough, because you must also know how much you know

and of what matters you are still ignorant. Otherwise you have not mastered your material; it has mastered you. You are swamped in your own knowledge. You have to tumble over your whole shop to find a three penny nail, and then not be sure of finding it. There would be no use in asking you anything in particular because you could not tell anything without telling everything. Beware of becoming a walking encyclopedia with no index and with the pages mixed. Doubtless you have known people like that, so learned that no one can make head or tail of what they say.

The trouble with such people is that they are glutted with information of which they have not taken stock. Their heads are not so much full as crowded. Take time, therefore, to take stock of what you know. Go to your desk and spread out all your notes. In reviewing them, reconsider their classification, shuffle and rearrange them in new combinations. Take a fresh general view of the whole subject, and see what you know about it.

Reconsider your authorities. There may be no reason for altering your first estimate of their relative importance, but on the other hand, now that you are better informed, you may change your mind about this one or that. This one is evidently out-of-date. That one disagrees with everybody else. A third is

supported, substantiated or corrected by other authorities. Now is the time to revise your judgments on these matters.

Reconsider your analysis of the subject, or in other words consider the topical headings under which you have classified your material. Make sure that they cover the whole subject. Make sure that each topic is distinct from every other. In order to do a good job, you may have to invent new topics or omit some as superfluous. You may need to combine some with others or to subdivide them into separate headings. When you have finished, however, you should be able to make an outline in which the parts of your subject are clearly separated one from another.

The practical result of such taking stock of what you know will be twofold:

You should thus get a wide but clear view of the whole subject in its varied aspects and applications.

You should thus be able to narrow your attention to the particular aspect and application which is of special significance to you and to your public.

Review and rearrange your notes.

II

When you take stock of your information, you will probably find, if you have not already done so,

that the subject is larger than you thought, indeed too large for you to cover. Study has widened your view of the matter so that it now appears much more extensive and complicated. This does not mean that you must give up in despair, but that with a wider view of the whole subject, you should be better able to choose that aspect which will be of the greatest interest and significance to you and to your public. You can now narrow your attention to something you can grasp and manage. A wide view always makes possible a sharper focus.

By this time all sorts of interesting angles have probably appeared. The history of your subject may exert a surprising fascination over you. You may be struck by a story about the man or men involved in it. Some theory of cause and effect, some special application, some critical case, some knotty problem, some ramification of one sort or another may seize your attention. Since you cannot go into everything, you are compelled to choose. As you consider all these possibilities, you will probably find that some particular interest or experience of your own has rendered you more alive to one matter than to another. Or you may discover that you have more information and better authorities on some single phase of the subject. Obviously, you had better focus your attention now on that topic, and so narrow the subject to the thing you know best. There are fifty-two cards

in the whole pack, but only certain ones have turned up in your hand. Shuffle and arrange them in order to plan what kind of game to play.

For instance, suppose you have embarked upon the familiar subject of immigration. You began to work on it out of some interest in America as the melting pot or in some Americanization project or in the preservation of traditional American ways and ideas. What have you found? You have found that this is an extensive and complicated business. Taking stock, you now see that there is the general matter of the history of immigration, which will include German and Irish immigration of the middle of the nineteenth century, the sudden increase in immigration upon the rise of industry after the Civil War, the change in the character of immigration after 1890 from northern to southern and eastern European stocks. Other topics will be such matters as Chinese, Japanese and Mexican immigration, the question of the desirability of various national groups as elements in our population, the assimilation of various peoples and the distribution of immigrants in city or country. You may also have taken note of social and political problems resulting from the congestion of immigrants in cities and towns, of labor problems in connection with immigrant labor, of the growth of restrictive control of immigrants in the case of Orientals and of Europeans, of the head tax, the literacy test, the quota system and the effect

of immigration on our foreign relations with such countries as Japan and Great Britain.

Evidently you cannot cover all these topics, certainly not all at once nor in any time immediately at your disposal. Nevertheless, you must select one to begin on, and your stock-taking should show you how to narrow your choice. What to choose will depend on what most interests you, what, as your notes indicate, you know most about. You must fix clearly upon some principle of choice, decide upon some rule that will guide you in narrowing your attention. For instance, you may narrow your subject to a particular period of time, and so choose to discuss immigration only in the years immediately preceding the Civil War or in the period from 1890 to 1914. Another method of limitation is that of place, which would lead you to confine your attention to the effects of immigration in California or in the metropolitan district of New York. To focus attention upon a special case or problem is still another method of narrowing. Thus you might consider the particular relation of immigration to the problem of crime and insanity, or to the case of the Scandinavians in their struggle to establish themselves in this country. The special case or problem can often be narrowed still further to a particular individual. You may decide to limit yourself to the account of some figure like Jacob Riis or Michael Pupin. You may also, of course, choose to

follow some special interpretation of the facts, some theory of their significance or some policy of action to be advocated. Such an approach as that just mentioned may involve you in the added risks and responsibilities of argument, as for instance if you should contend that immigration from southeastern Europe ought to be still further restricted as a menace to our institutions and type of civilization.

These are some of the ways by which you narrow consideration of a subject. Not all these ways—time, place, special problem, particular case or individual, definite theory of significance or policy—are always applicable. You must follow the cue suggested by your own material. If your subject is bridge-building, you may narrow the matter down to bridge-building in the time of the Romans or in the period just after the coming of the railroads, or to some single type of bridge construction like the arch or the cantilever, or to the career and engineering exploits of some builder of bridges like Roebling or Eads, or to some particular bridge like that over the St. Lawrence at Quebec and to the way in which it solves the problems by which its designers were confronted.

If you are dealing with Mark Twain, you may limit yourself to the period of your author's early days on the Mississippi as reflected in *Tom Sawyer* and *Huckleberry Finn*, or you may find that *Roughing It* has led you to focus your attention upon the Rocky

Mountain mining camps in the days of the gold rush, or you may choose to defend the critical theory that Mark Twain was a great artist thwarted by fear lest he might not be thought sufficiently respectable by his friends and family.

Taking stock, whatever your subject may be, should, therefore, do two things for you. It should reveal to you the extent and variety of your subject, its reach in space and time, the multiplicity of types, personalities, problems and questions which it involves. Taking stock should help you to decide which of the phases of the subject thus revealed is best represented in the authorities you have used and in the notes you have been taking. On the basis of this taking of stock, you should now narrow your further study and your discussion to that aspect of the subject on which, as you now discover, you are best informed.

Determine the range and variety of topics involved in your subject.

Select a topic or topics to which you can best narrow your attention.

III

Such review of your material is one of the most critical points in your work. Your final success depends largely upon the decisions you now make. Consequently you had better take advantage of your

instructor's services as an expert in such matters. As one good workman to another, show him over the job. Lay before him the following material:

All your notes, reclassified and rearranged.

An outline, similar to the lists cited in the illustrations given above, of the topics which comprise your subject as a whole.

A statement of the particular topic or phase of the subject to which you propose to confine yourself from now on.

Do not waste time just now in trying to make all this material neat, correct or superficially presentable. You can attend to that later on. Your instructor is chiefly interested now in seeing how you work and what you have found to work on. If you take him into your workshop, he will not be shocked to find shavings on the floor, nor demand that you interrupt business in order to tidy up. But, if you give him the chance, he may help you to straighten out your ideas; and unless your ideas are straight, your work will be a botch, no matter how painstakingly you have put it down on paper.

Hand in to your instructor all your notes, an outline of topics, and a statement of the way in which you will narrow your discussion.

CHAPTER VIII

PLANNING WHAT TO SAY

I

You are now in the position of an author who has become familiar with his material and with his public, and is ready to cast about for a publisher. Though writing may be justified of itself as a useful exercise, few people like to undertake the labor necessary to write a book unless they can get it printed. In practice, authors frequently go prospecting for a publisher as soon as they begin to plan what to say.

You are not going to write a book, but you are going to write an article which, in the time at your disposal, will probably run to three thousand or five thousand words. If you have narrowed your subject properly, you ought not to need more words and you may need fewer. A book is no better and no worse for being long or short. *The Old Wives' Tale* by Arnold Bennett and *Nocturne* by Frank Swinnerton are both successful novels, but one extends to 612 pages and the other, in larger print, to only 250. Whatever the length of your article, your problem at this stage is exactly that of an author who is about to plan what

he is going to say rather than how many pages he must fill.

The first thing to do is to plan your article, and then find someone who will hear about it, and later, if he is favorably impressed, help you to obtain an audience. For this reason, you will try out your publisher as you have tried out your public. A publisher is a man whose business it is to help authors reach groups of people who are so curious about certain subjects, or who can be made to be so curious, that they will part with their money to satisfy their curiosity. Naturally, an author will turn to a publisher who cultivates the kind of public he wishes to reach. If he is an authority on chemistry or surveying, he will hardly consult a publisher who is accustomed to issue only detective stories or problem plays. He will exercise some discrimination in his choice. Though your publisher is to be your instructor, your opportunity is not limited unduly. Most authors are quite as restricted by the conditions under which they have to work. You are merely a little more fortunate in that you are certain to secure a contract from your instructor if you apply yourself to the task before you. To get him to accept your article, you will, however, have to proceed like any other author.

You will have to approach your instructor exactly as an author approaches his publisher. You must try to induce him to accept what you have to say. Since

a publisher is not a philanthropist, he is under no obligation to rescue an author from starvation. He is a man of affairs, and like most men of affairs he must judge results to some extent by dollars and cents. Of course, like everyone else, he has his hobbies and ideals, and he may be prepared to run the risk of putting forth an essay on golf or china that few people are likely to read, or to sacrifice part of his profits to make available a scholarly treatise on the use of final *e* in Lydgate or Chaucer. Nevertheless, he can afford as a rule to accept only books that will make a definite appeal to the groups which he serves. Before he will commit himself even to the examination of a manuscript, he will wish to know what it is about. Try to be explicit, therefore, as you begin to formulate your plan. Tell your instructor, who is to be your publisher, exactly what you want your classmates to see, to understand, to believe.

The initial step in planning what to say is to attempt to put the gist of it in a single sentence. If you can crowd the theme into twenty words, you are on the right track, though you have only started. Every publisher wants to know something about the material as well as the purport of a manuscript, something about the mass of facts and ideas the author has undertaken to refine. You will therefore have to examine your material in the light of this necessity. As you have stated in a single sentence the point or pur-

pose of what you are going to say, try now in another sentence to describe the material you expect to use. Can you say that it is drawn primarily from this source or from that; that it is based upon your boyhood life in Scranton or upon the intimate diary of a local celebrity? If you find that it does not lend itself to such easy and explicit characterization, take stock again.

When a publisher has read a statement from an author setting forth the gist of a proposed article or book and the material to be used in it, he can ordinarily tell at once whether he cares to consider the possibility of finding a public for it. He will know whether the writer has been curious about hard wheat or Diesel engines, about the single tax or negro poets; whether he has explored the plains of Canada or Siberia, the shops of Germany or the United States; whether he has studied the career of Henry George or Paul Lawrence Dunbar; and, as a publisher, he knows, also, whether these are subjects that are likely to appeal to the group to which he caters.

Nevertheless, before the publisher will hold out much encouragement to the author, there is still a third matter he will want to know something about —namely, what treatment the author proposes to adopt. If the subject is American imperialism in Haiti, the publisher will want to know whether the author proposes to attack the Department of State.

If it is morality among undergraduates in American universities, he will want to know whether the writer is an advocate of trial marriages. No publisher, of course, is likely to suggest a change in the point of view; an author's point of view is usually his justification for what he has to say. On the other hand, the material must be adapted to the readers for whom it is intended. However the subject may be regarded, it can be presented in a way to attract rather than repel. There is no necessity for you to budge from the position at which you have arrived, but you are bound to make your view as appealing as possible.

You have a responsibility to your subject as well as to your public. If they are accustomed to what is cheap and shoddy, you are under no obligation to supply them with something of the same low grade. Even if you think they will be content with what is second-rate, you need not be content to give it to them. You will probably find that to make them like what you like is not so difficult as it seems; that much of the superficial and somewhat cynical talk you hear from day to day is really a smoke-screen to hide a genuine interest in many things that are worth while; and that most of your classmates live and think on a plane quite as high as your own. Don't try to sell them anything that is not all wool and a yard wide. If you believe you can hoodwink them just because they know

little about your subject, you may find that you are self-deceived. Those who sell goods under false pretences always lose in the end. You will lose, too, if you do not play fair.

In addition to such matters as subject, material and treatment, a publisher will also want to know whether the time is opportune. The subject may be fascinating, the material adequate, and the treatment effective; but the moment may not be auspicious. An acetylene torch makes a brilliant pyrotechnic display, but you would hardly use it to illuminate a drawing room. Any subject and any treatment are right at the right time, but they are all wrong at the wrong time. Fortunately for you, this is the right time for practically every subject that can stir your curiosity. You are not likely to make yourself ridiculous in your choice. On the other hand, it is possible that in spite of your best efforts you may needlessly offend one of your classmates. Though the chance is slight, it is well to guard against it. If what you want to say is worth the price, don't hesitate to say it; but count the cost, if not to yourself, at least to others.

Begin to plan your article by summing up in a single sentence what you chiefly wish to say, by describing in a single sentence the material you intend to use, and by stating in a single sentence the effect you desire to create.

II

You are now ready to induce your instructor to read the article you propose to write. Remember that he is under no obligation to read a thing merely because you have set it down on paper. You must persuade him that what you are going to write will be worth his reading. You will find it wise, therefore, to submit to him a statement of what you plan to say in the article upon which you expect him to spend his time and for which you expect him to secure an audience.

There are many ways in which you can map out your article for your own use and your instructor's approval. You may make a mere outline with a number of topics arranged under different headings. Though such an outline is often helpful, it is likely to be too sketchy to be of much service at this time. You will learn more about what you actually want to say, and so will your instructor, if you set down in complete sentences the principal points you expect to make. If they follow one another in logical order, the result will be a kind of miniature which you can use as a blue-print for your article.

Start at once, therefore, to plan more definitely what you want to say. Spread out your cards. Shuffle them again. While you have been collecting your material and analyzing your public during the last few weeks, you may have hit upon some consistent

order in which to arrange your facts. In that case, all you need to do is to shift your cards, moving a few here and there to establish the proper sequence. On the other hand, your material may still, at first glance, appear to be in a chaotic state. Though you may have reached a trial balance, what you need next is a budget of operations. Figure out what you are going to do before you start putting anything down on paper.

If you study your cards, you will find that they fall into obvious groups. They are spades or hearts or diamonds or clubs, in spite of the fact that, whatever your subject, they may seem a chaos. To know where you stand, you will have to bring together all the cards in each suit, the spades together, the hearts together, the diamonds together, the clubs together. If your subject is types of tree surgery, your main groups will undoubtedly be open cavities, covered cavities, bolted cavities and filled cavities. Or you may have to discuss the causes, the incidents, the reactions in the United States and the results in Latin America of the recent occupation of Nicaragua by American marines. In every case, group your cards under main headings that seem equally important, and then adjust them in a sequence that in the light of your material and from the point of view of the readers you are addressing seems both logical and effective.

Even when you have grouped all your cards under the proper headings, you will have merely begun the task of classification. Each of the principal groups will still be a jumble. What you have done for your cards as a whole on a large scale, you will now have to do on a smaller scale for the cards of each group, your spades or hearts or diamonds or clubs. You will have to arrange them in an orderly progression. Filled cavities, for instance, evidently include cement, asphalt, wood and sawdust. The origins of the Nicaraguan occupation may be traced to such causes as political instability, personal ambitions, commercial rivalries and financial weakness. As before, you will have to follow coherently some principle of arrangement; and you may have to do this not once but several times, dealing again in the same way with cement or political instability. Not until you have accounted in this manner for every card, will you be in a position to say to your instructor, "This is the game I am going to play."

With all your cards accounted for, you will be able to tell him what you can do, and ask him for a contract. Since "bidding," whether in a game of chance or in a matter of business, follows certain conventions, you should know the requirements you are expected to meet. Briefly stated, the elements which you should incorporate in your proposal to your instructor are as follows:

State the gist of your subject.
Describe the kind of material you expect to employ.
Indicate the attitude you intend to maintain.
Show how your public is likely to react.
Name the principal points you wish to make.

Evidently if you are to do all these things in the two or three pages fixed by custom for a proposal of this character, you will have to stick to what is essential. A plain, bald statement devoid of finery will best serve your purpose. A budget of operations is no place for frills. Fix your instructor's attention, therefore, on what you plan to say, and let the style take care of itself.

Hand in to your instructor your plan for the article you wish him to read and consider for publication.

III

Now that you have set down your plan in the form of a proposal to your instructor, how clearly and concisely have you indicated the gist of your subject? How accurately and how fully have you described your material? How carefully and how fairly have you explained your point of view? How faithfully and how intelligently have you pictured your audi-

ence? How definitely and how logically have you set forth the main topics which you propose to consider?

Does the single sentence into which you have condensed your theme, the essence of your subject, cover all you wish to say and nothing else? Does it make your position clear? Have you said that in your article you intend to explain the various methods of budding employed in commercial orchards of different types, or that you intend to trace the development of the collar industry in Troy, New York?

Have you described your material accurately and as fully as space will permit? Your uncle's orchard in California or Florida, the newspapers of the Capitol District, or the records of Cluett, Peabody and Company—have you made it clear that these are the sources upon which you have drawn? If your subject is etching in America, or the manufacture of soap, have you said plainly that your material is based largely upon the collection of prints in the college museum or upon the processes employed in a local factory?

In explaining your approach, the point of view you are going to maintain, have you been careful? Have you been fair? Do you want what you have written to represent your considered judgment? Are you prepared to let it stand? Have you eliminated, too, every possibility of misunderstanding? Have you explained

simply and judiciously that, in discussing the music of MacDowell, you expect to emphasize its imaginative qualities; that, in describing the work of the State Conservation Commission, you intend to emphasize the contribution which it is making to the health of the community; that, in discussing the position of women in the learned professions, you are militantly in favor of equality of opportunity; or that, in discussing the use of toothpaste, you propose to attack the prevalent practice of hoodwinking the public?

How faithfully and how intelligently have you pictured your own public? As you recollect the impressions gleaned from your conversations, your interviews, your hearings, your questionnaires, do you find that you have differentiated the groups of which it is composed? Have you stressed sufficiently what they know and what they merely think they know? Have you shown where your ideas coincide with theirs and where they clash? Have you, to be specific, indicated that most of them know nothing about MacDowell, and that those who heard his compositions at the first college concert think him weak and effeminate; that many conceive of the State Conservation Commission only in terms of game laws and regulations about fires, and that only those whose summer homes are in the mountains know or care about its fight against disease; that most of the women students in your class are more interested in "dates"

than in the professions, and that the three who have a half-hearted desire to become lawyers can easily secure admission to the bar in the states where their fathers are distinguished citizens; or that practically everyone of your classmates is a rank materialist who believes that if the manufacturers of toothpaste can sell for twenty cents a mixture that costs them only two, they deserve all they get? If you have answered such questions, you have defined the point of view of your public.

Does your plan, finally, indicate at what point in the subject you are prepared to start? Have you planned to tell not too much and not too little, to prod on this group or that without going so far as to run the risk of its balking or turning upon you? Does each sentence make its meaning so obvious that your instructor will know where it is headed? Does one point lead to another, and do all lead to the conclusion? If so, you may be satisfied that what you have to say may be well said. Your next task is to say it.

Make sure that your plan is both complete and clear.

CHAPTER IX

WRITING THE FIRST DRAFT

I

In what you have been doing so far, you have not, strictly speaking, been writing but merely getting ready to write. You have explored your subject, collected and arranged your material, and got acquainted with your public. You have planned what you wish to say, and you have secured the consent of a publisher to consider your work for publication, if and when it is completed according to plan. You have, so to speak, been preparing gun, ammunition and target. Now load, take aim and shoot. Say what you think about your subject, and say it so that your public will understand it in the way you wish.

You will not succeed by accident or by muddling through. Understand each step. Students often work hard and long over compositions of this sort, commit a great many words to paper, learn to hate the whole business, and bungle everything in the end. The reason for this is plain. Such students work without understanding what they are about or why they should be doing what they are trying to do.

They begin to prepare the essay they are to write for Economics or History or English or some other course by reading without any kind of plan and without discriminating intelligently between one book and another. They do not attempt to analyze what they read or to classify their facts under suitable headings. Instead, they make a long loose loose summary of each chapter or article read, with plenty of quotations copied out in full, and they keep this up until they think they have enough. Then the night before their essay is due, they begin writing by trying to concoct a chatty introduction which has nothing really to do with the subject. That done, they start on their notes. They paraphrase their first author unless they think it safe merely to transcribe what he says; then the next and the next. When they have filled up enough pages, they stop short and clap on a conclusion which has as little to do with the subject as the introduction had. All this time they try to remember as many rules of rhetoric, grammar, punctuation and spelling as they can, being careful to scratch nothing out for fear of spoiling the appearance of the manuscript. They count the words, and if the essay turns out to be too short, they stuff in something more at the end or spin out the conclusion a little thinner. Then they thank their stars that the job is done. They have spoiled their tempers and a number of sheets of paper. The instructor will have to read what they have put down, and he will

be even more bored than the writers. Finding it too late to teach them anything useful about composition, he will pester them about "comma sentences" and the punctuation of nonrestrictive clauses. They will conclude that writing is for them an impossible task, and their instructor will despair of college education.

But none of this is necessary. Even if you are not a genius, you do not need to be a muddled bore, and you can learn to give a sensible and readable account of what you know. Don't say, "Well, I guess I'm not a writer," and give it up. Since you hope sooner or later to accomplish something for yourself by the use of your intelligence, you had better acquire some command of the technique of composition, just as you had better learn how to drive an automobile or how to do a number of other things which will be demanded of you in your business or profession, or which will add to your enjoyment of life.

It is important, first of all, to get a clear picture of the whole process of putting your thoughts in writing to be read. What is the thing you are composing? You may for convenience call it an article; you could just as well call it an essay, a report, a letter, a speech or any number of things. When finished it will appear in a form easy to handle and to follow with the eye. It will be agreeable to the reader's taste. It will be clear. It will state what the author thinks about what he knows. It will begin at a certain point and reach

a certain conclusion. What must you do to make such an essay? Well, you already know your subject and have thought out your ideas. You have decided which to present and in what order to present them. You must next define and explain each idea in order and connect one with another. You must arrive logically at a conclusion, and you must get all this down on paper so that the effort of reading will cause as little physical strain as possible. You must lay out your final copy in such a way as to guide the printer in making your article attractive and readable when printed. You must help your reader's eye by the convenience with which your pages are arranged. You must help your reader's mind by sentences clearly constructed and punctuated. There should be no distraction due to incorrect spelling or diction. If possible, there should be grace and charm to carry the reader on his way rejoicing. These are the technical objectives of the process which we call composition.

In your completed essay all these objectives must be accomplished, not one or two of them, not now one and now another, but all of them at every point from beginning to end. You have, as you see, to perform a number of operations in order to produce a single combined result. Nevertheless, the task will be in no wise beyond your powers if you are well prepared in the understanding of your subject and of your public. With practice and increase of skill this

stage of the work of writing will become a pleasure. But you need time to give attention to one step at a time, and to take each step at the right time. You need above all things leisure.

Don't wait until the night before, and don't try to write in half-hour snatches between engagements. Choose a stretch of several hours when you will not be hurried or interrupted. Go to your room. If possible, lock the door, or at any rate hang out a sign telling everybody to call later. Now if ever burn the midnight oil. You are at last composing. Abandon yourself to the job. Work yourself into the fit or rage peculiar to the writer. Be useless to everyone until it is over, and the frame of your essay is put together. Sufficient leisure is the first essential to your success.

Take one step at a time. Assembling material, formulating a plan, drafting the whole in the rough, checking up the sequence of parts, inspecting and testing each part, revising details of various kinds, preparing final copy, proofreading—you cannot do all these things simultaneously. Composition is the art or technique of performing all these steps in a sequence which will result in the single whole which will be your essay. To write well you must perform each step, and to perform each step effectively you must perform one step at a time. To perform the whole you must perform the steps in the right order.

Later on in your college experience, as you gain skill through practice, you will become less conscious of each step in the process. You will learn to do two or more of them at once, and thus gain speed in composition. Eventually your technique may become so perfect that you will be able to sit down and write out what you have to say in acceptable form and in logical order about as rapidly as you can put words to paper.

There is no mystery in all this. Any intelligent person can learn something of this technique without being a genius. Even a genius has to learn it in much the same way. Learning to write is like learning to swim or to drive an automobile or to practise any other specialized skill. In learning to swim, you would not think of plunging immediately into deep water. Those who do sometimes manage to keep afloat long enough to get ashore again, but more often they go to the bottom unless they are rescued by someone else. In learning to drive, you would hardly expect to slip into the front seat and run the car without more ado. So with writing. If you fail to take pains in the beginning to learn each step, the results will not be so immediately fatal as in the case of swimming and driving, but they will be hardly less disastrous in the long run. You will not be drowned or smashed up, but you will be bored and confused. What is still worse, the very people by

whom you wish to be understood will also be bored and confused. One step at a time, therefore, each step at the right time, and eventually all the steps flowing together in a single, smooth-running, continuous operation—only thus can you or anyone learn to write.

What is the first step? The first step is to make sure once more of your subject. Make sure your mind is full before you fill your pen, that your wits as well as your pencils are sharpened. Review your notes, make ready your facts, take a long walk and talk to yourself about the subject. At whatever exertion, make yourself do these things, odd though they may seem. But don't worry about being odd. It is also odd to have the power of making your mind do what you want when you want. Therefore, if you wish to command this power of making words work, don't hesitate to attempt what may seem new to you. Let your mind play freely over what it knows. Meditate, reflect, dream.

Prepare to compose an article of from three to five thousand words.

Give yourself leisure to perform all the steps in composition, one at a time, each step in the right order.

Take the first step by reviewing all you know about the subject and reflecting upon it.

II

If you have meditated on your subject to good effect, you should now be ready to write. If you are somewhat excited about the business, so much the better. In this mood, settle down to compose your rough draft. Put away your notes, lay your plan before you, and write. Whatever is essential in your notes, you should now have in your mind. Your plan sets forth briefly what you want to say. Your next business is to get that said. Remember, however, that you are not making the final copy. You are trying to do one thing and one thing only, namely, to get your leading ideas down on paper in good order. You are blocking out the whole article, basting it together, assembling the parts. You are running up the frame of your house. There will be ample time, later, for verifying references, rearranging sentences or paragraphs, weighing words, and preparing a final copy.

The only thing to think of at this stage of the game is the plan you have made—your blue-print or working drawing—which represents the sequence of ideas you have agreed to write. Get each one down, therefore, in full. Take up one at a time in the order you have set. Since your mind will, of course, go on turning over the subject as you work, you may hit upon new and better ideas. If so, change your plan accord-

ingly, even if you have to go back and do part of the job over. But don't wander off to something irrelevant, however interesting it may be. Revise your plan, but don't abandon it.

Go on writing. That is now the essential point. Don't hesitate. Don't worry lest you write too little or leave something out or use the wrong word or misspell. Don't be afraid of anything but getting off the subject. Keep at it. Blaze away and get the thing written in some fashion however rough. Put your ideas down on paper where you can look at them and work over them. In the making of anything, whether an essay, a ship or a statue, the most exciting moment is when the thing itself—essay, ship or statue—actually takes shape before your eyes and begins, as we say, to look like something. Crude and unfinished as it is, the work of hand and eye and brain suddenly comes to life.

But you can easily prevent yourself from having this experience because, as an unpracticed writer, you are liable to two common mistakes. One is to cling timidly to your notes. Put them aside. Try to write without them. Use the material that you remember, the facts and ideas that come to you. If you do not remember exactly the name or date or figure or whatever it may be, leave a blank to be filled in later, or at least, if you simply must have it immediately, look it up as quickly as possible and go on. Always go on.

Never stop for anything in the course of writing your rough draft if you can possibly avoid doing so. "But," you may say, "how do I know the article will be long enough?" You don't know, but it doesn't matter. Your article will be as long as it feels. A good article like a good book or a good play is never too long, but a bad one is never short enough. Do a good job, and take a chance on the length. Do a bad job, and the longer it is the worse it is.

"But," you may once more exclaim, "if I don't follow my notes, I may leave something out." Just so. You had better leave something out. The fear of leaving anything out is the straight road to pedantry, dullness and prolixity. The best authorities always know more than they tell at any one time. You should know more than you try to tell in order to know enough to write intelligently, because to write intelligently is not to exhaust what you know but to select and arrange what you want to say. At a later time you will need to turn back to your notes and verify, modify or extend your statements. At this time, if you keep your notes before you, your essay will not be a clear statement of what you think but a jumbled transcript of the material about which you should have thought.

The other danger is that you will turn aside from the business of letting your ideas flow out on paper in order to think about the way they are flowing.

What would happen if you worried about the scratch on your mud guard when driving down a slippery hill? You should now be thinking of your subject, of the sequence of your ideas, and not about style, grammar, diction, spelling, punctuation or even the indentation of paragraphs. If you think clearly and keep your mind on your subject, your sentences will probably be clear and straightforward. If you think actively and let your mind run freely, the right words will probably come to you, better words perhaps than if you fussed about them. In any event you can always look out for such things later. People will read you primarily because of what you have to say. They may not read you even then unless you write correctly. They are sure not to read you if you are merely correct and have nothing to say. Therefore make sure that you are getting something said. Not the manner first, but the matter, not how but what. In other words, when making your rough draft let sentences, words, spelling, punctuation and the like take care of themselves. Let them come as they will. Do anything which makes the work easier for you; abbreviate, erase, scratch out, insert, write between the lines. But get on with the one thing needful, which is to make a rough draft—no matter how rough—of your whole thought.

Making this rough draft means taking each proposition laid down in your plan, stating it, enlarging

upon it, setting it forth in one way and another, linking it to the next proposition and going on, always going on. The plan doubtless indicates the order in which you wish to set your ideas forth. If so, go ahead without hesitation and without too much attention to what we are going to tell you next. But the plan may turn out to be a good logical statement, and yet not a good scheme for effective presentation. Or you may go ahead on your scheme of presentation and get stuck in the middle of it, puzzled to know what to do next. In either of these events what we say next may help you. We are not going to give you a general rule for all problems of presentation, but merely some working directions, convenient practices of the writer's trade. Read them, catch on to them as you are able, let them simmer in the back of your head as you write. They may help you to get started. If you get stuck, come back and read them over again in the hope of picking up a hint as to how to proceed.

Don't waste time over the introduction. The best rule about the introduction is to forget about it. Begin, no matter how abruptly, with the first thing you have to say on your subject. It is well to be sure that it ought to be the first, but it is better to begin on it anyhow. You can tell later whether you were right in starting with it. The important thing is to get the several parts of your essay written as rapidly as possible. You must, of course, write them one at a time.

But you can arrange and rearrange them later until you hit upon the best order for them all. Then, if need be, you can add a preliminary or introductory part. Inexperienced writers often waste time by trying first to write what they call an introduction. Beware of making this mistake. Don't boggle over the opening sentences. Don't sit and chew your pencil waiting for inspiration. Don't think that you must begin with a personal anecdote, an apology, a funny story, a solemn assurance of the importance of what you are going to say, an account of the way you happened to become interested in such a subject, or any one of a number of other irrelevant matters frequently brought in to use up time and delay the real beginning.

Begin by telling the reader what he needs to know in order to get started on the subject. This is the one kind of preliminary matter which is indispensable. You have by this time become expert in your subject. You have long since got over the preliminaries, and have become immersed in problems and details. Not so with your reader. He still needs the preliminaries. Matters which have become so obvious to you that you no longer think about them are not obvious to him, and need to be stated. The omission of a clear statement of elementary and fundamental points is not a sign of profound learning but of a certain lack of imagination, an inability to put yourself in the reader's place. Although experienced writers

sometimes commit this fault, it is more frequently the sign of inexperience.

In putting yourself in your reader's place, you must frequently allow not only for his ignorance of your subject but also for what you may regard as positive misconception, difference of feeling, or prejudice on his part. You must if possible allay his apprehensions at the same time that you initiate him into your point of view. For instance, your ultimate purpose may be to set forth the theory that Philadelphia merchants may have supported the American Revolution because of the profits they hoped to derive from independence. But do not plunge your reader immediately into details of the export and import trade of colonial Pennsylvania. He may need first some statement of the elementary economic principles involved, of the general state of trade under the Navigation Acts, of the relation of economic motives to war. At the same time he may be in the habit of thinking of the Revolution only as the overthrow of foreign tyranny by patriots actuated by the ideals of the Declaration of Independence. Yet he knows from his own experience, probably, that war and business are closely related. Begin with the reader where you find him. Remind him of the part that economic forces as well as political ideals have played in recent wars. Review the older interpretation of the American Revolution, and so lead up to your interpretation of the economics of

that event. This would be one way of beginning on ground familiar to your reader. According to the nature of your particular problem, devise a way suitable to your own case.

Define all terms necessary to the comprehension of your thought. In order to make certain that the reader will understand, you may have to begin by defining some important key word, possibly a special or technical word like *enzyme* or *counterpoint*, but more likely a familiar word like *bolshevism* which everybody uses but of whose meaning few have an exact notion. If you do not make sure that your reader has such an exact notion, you may confuse him by using the term in a way strange to him or difficult to grasp. For instance, we all use the word *money*, and we all think we know what it means. We may indeed know well enough that *money*, as the dictionary says, is a standardized medium of exchange. But how many of your readers could readily tell you what is meant by "money in the bank" or by "the money market"? If you are writing on a subject connected with foreign exchange or banking, you need to make sure that your reader understands, when you say *money*, not merely the cash in his pocket but also the system of credit which men have devised for dealing in economic values. Many other words, perhaps used daily in our talk, require similar explanation in any careful discussion.

Follow a connected scheme in the presentation of your subject. The scheme of presentation which you have adopted has probably been suggested to you by the nature of your subject and by your previous experiments with your public. You may be presenting your subject as it occurred step by step in time, or as it is arranged part by part in space. Or you may have a principle or proposition to state, expound and even defend. Or you may wish to confront the reader with a concrete problem, which you proceed to analyze, to discuss and to solve or not as you may deem best. Or you may set forth the functioning of some institution or mechanism, what it attempts to do, what means and processes it uses, how it works and what it succeeds in accomplishing. Or your purpose may be to interpret a work of art or literature, telling the reader what it says or does, how the author came to make it what it is, how it makes one feel, how well it is done or how much better it might be done. Or you may combine several such schemes, or devise one of a kind which has not been mentioned.

If in composing your rough draft, you find yourself unexpectedly halted and at a loss how to go on from the stage at which you have arrived in your discussion, the probability is that, at some point further back, you have altered your scheme without at the time realizing what you were doing. Beginning to build a cottage, you have absent-mindedly started

changing it into a two-story house, and suddenly discover that you lack a staircase. Beginning a purely historical exposition of the subject, you have absent-mindedly plunged into an argument over some detail and now do not know how to get out of it. If you find yourself caught in some such fashion in the middle of your writing, go back over what you have done, make sure of your scheme, see whether at any point you have departed from it without intention or sufficient preparation, and start over again from that point.

Refer from time to time to points already made and sum up your case in conclusion. The reader at each point in your essay has had to do two things at once. He must understand what you are saying at the moment. He must at the same time for that very reason hold in mind what you have previously said. In order that he should thus remember, follow and understand, it is well to refer back now and then to what you have already said, to repeat briefly, to recapitulate and sum up your points. The conclusion, like the introduction, should not be a formal, irrelevant, tacked-on affair, but a final statement of the particular matter you wish the reader to carry away with him. Send him off with a parting fact or illustration or idea which puts the whole case in a nutshell for him. Fling a challenge after him or at least a striking phrase to make him go on thinking. Don't flicker out in a mess of unimportant after-thoughts

and things you forgot to say. The conclusion should be as essential to the understanding of your thought as any other part of your essay. Keep marching right on to the end, and then stop with a good round turn.

The suggestions just given do not cover all the problems you are likely to encounter in writing your first draft, but they give you merely a few working hints. Do not try so hard to remember them and to follow them that your attention will be distracted from your subject. Let them work in the back of your mind as you write, and go on with your writing. Come back to them for help if you really get stuck. The main thing now is to get started and to go on writing until your essay in some shape, crude or otherwise, is on paper before you.

Put aside your notes.

Lay your plan before you.

Write the rough draft as rapidly as possible, thinking only of the sequence of ideas you are trying to express.

III

The rough draft has a single and most useful merit—it is rough. It is a rehearsal, not a gala performance. It is the first sketch, not the finished picture. It is modeled in clay, not cast in bronze. In other words, the rough draft can be changed. You

can add, cut out, rearrange, touch up, make over. When you began to write, you thought you had something to say, and you tried to say it in a tentative experimental fashion in order to give it a trial run. A test of this kind enables you to judge of the probable effect of what you have written, to find the weak spots in your work and to do what can be done to correct them. The next step in the process of writing is criticism.

Let us warn you, at this point, against discouragement. Even old hands at writing often feel downhearted after the rough draft is done, and such discouragement is easy to explain. If you have put your whole mind to this matter, you have used up a good deal of nervous energy and, without knowing it, you are fagged. After the excitement of composition, you inevitably go a little flat. If, in this mood, you look over what you have done, you will probably be disappointed. Well, your work may not in fact be entirely successful, but in your present state, you probably will not be able to tell exactly why. Wishing to be done with it for good, you may therefore be tempted to copy it over and let it go. If you do that, however, you merely throw up your hands in defeat; you will never become a writer. To become a writer, you must go on from this point; grit your teeth, if necessary, and get your second wind.

The best thing to do when the rough draft is fin-

ished is to leave it where it lies on your desk, or stuff it into a drawer, and go out and get some exercise, a good dinner and a sound sleep. As a result, you will be able to return to your manuscript next morning with fresh spirits and a clear head.

But, you say, you do not know how to judge your own work. True enough, you probably do not know how to judge anybody's work. If you did, why should you study this book? You must learn to judge your own work if you wish to learn how to write, and you can learn if you use common sense and avoid self-conceit. Don't be emotional. Don't gloat over what you have written and say, "What a clever fellow I am!" Don't groan over it and say, "What a numskull!" Such attitudes lead nowhere. Put yourself in the mental posture of the critic, that is, of your public, and ask the critic's questions of yourself as though you were somebody else. What does it say? How does it strike the reader? Does it hang together? Does it move forward? Does it arrive?

Be your own critic but not your only critic. Now is the time to make good use of your instructor. You should give him the rough draft to read just as it stands. Never mind how rough it is. Let him see the manuscript in its unfinished state, illegible, misspelt, ungrammatical, scratched, scribbled and blotted over though it may be. In these respects his own rough drafts may be no better. Moreover, you are still a

green hand in the middle of your first job. Therefore you should let your instructor see your essay now when he can do you some good, by pointing out the weaknesses which you are unable to see or correct unaided, but which it is not yet too late to rectify. He will not hunt through it to find fault, nor will he pay you compliments. He will merely look over your shoulder as you work, and give you the practical advice of a more experienced workman. He will tell you whether you are getting your ideas stated straight, whether you are making your effect, whether to go on as you have begun, or whether and how to change your procedure. He will, of course, be forming at the same time an estimate of your ability, but he will not be judging you so much as showing you how to do your own work.

Be sure to take an intelligent attitude toward your instructor's criticism. Unfortunately, many students regard criticism as something disagreeable written on a theme after it is finished. What they hope for is something pleasant, something which will mean a good mark and nothing more to do. Obviously, this attitude is nonsense. If you were apprenticed to a plumber, you would expect the boss plumber to show you how to work by watching you and advising you in a practical way. You would not be trying to get praise and avoid blame, though you might get them incidentally; you would be trying to become a

plumber. Well, you are apprenticed to a writer and trying to become a writer. Never mind praise or blame, but make your instructor show you all he knows about writing. "There is what I am trying to write," you should say, "How should I do it?"

Hand the rough draft to your instructor for criticism.

Confer with him concerning it.

Get his practical advice as to the best way of completing the job you have begun.

CHAPTER X

SHOP TALK

By the time you have come to this chapter the exciting part of the work will be over. You have now completed your article in its main outlines and essential parts. What remains is to put it into such condition that all the reader has to do is to sit down and read it without having to think about anything but what you are saying. Having built the house, you must paint and decorate, polish hardware, glaze windows, rub floors, clean up and invite your friends to come in and inspect. In other words, having fixed the form of your essay as a whole, you must now adjust the parts. You must make sure that paragraphs, sentences and words are working right. You must at any rate prepare a perfect copy for publication. The ensuing chapters of this book will give you some practical suggestions to help you in settling all these last minute details.

The present chapter is different. It will provide a pause in which you may catch up if you have not kept pace with what has gone before, or in which you may take breath before tackling the final task of revising your manuscript for publication. It will give you

nothing to do. It will merely talk things over, especially certain matters of importance which could not be said earlier without interrupting the continuity of your work. When you talk about your aims and experiences with other people who are engaged in the same pursuit as yourself, you are talking shop. This chapter will talk shop.

You sometimes hear it said that nobody can teach another how to write, that writers are born, not made. To some extent that is true. Some men are born to be better swimmers than others, or better marksmen or better mathematicians or better writers. But that fact does not make it less convenient for you to know how to swim, nor should it prevent you from learning how to swim as well as you can. Neither should it prevent you from learning how to write. Besides, even born writers, like born swimmers, have to learn, and if nobody ever learned, how could we ever find out who is born to the art? It is more true to say that no one is born, at least no one who gets into college, with so little native ability that he can learn nothing about writing or with so much that he has nothing to learn.

Good writing is not the result of magic. Whatever one's special aptitude, good writing is largely the result of technique. Technique, indeed, is merely a magic of which you perceive the method; magic is merely a technique which you do not understand. Technique is the method by which you use the powers

and the materials at your command in order to do what you want to do. It is the method by which with arms and legs you swim in water when you wish to save yourself from drowning. Writing—or composition or rhetoric or whatever you choose to call it—is also a technique and writers are technicians.

Writers, like other technicians, have their trials, their ups and downs, hopes and fears, hard knocks and peculiar satisfactions. Learning anything is always a painful sort of process. The beginner is generally diffident and self-conscious. He cannot help feeling foolish and conspicuous. "What, I a dancer! How ridiculous!" But it is a wise saying that you cannot learn to dance or skate or walk or swim or build bridges or write books or even essays without making yourself ridiculous. You step on your partner's toes; you run into other dancers; you may fall over the chairs; you may even measure your length on the slippery floor. Well, this is the way of all flesh. Your awkwardnesses and embarrassments are not peculiar to you. Others have been through them too. The authors of this book, in preparing to write, met in the publisher's office and mapped out what they wanted to say. From time to time, a clever secretary took down the main points of the plan. When everything was done, they asked her what she thought of it. She had been to college and studied Freshman English, but her comment was, "Why, I didn't suppose other peo-

ple did these things, too." Yes, other people do them, survive all the difficulties, and learn to write at least better than they did.

Let us pause now and glance at some of the turns of emotion you may have had while doing your work. When you were told to find a subject of peculiar interest to yourself, it may be that you knew at once what you wanted. More likely you were puzzled, and for a time you floundered. Then you hit upon something. Though you were not really sure that it concerned you very vitally, you were relieved to get the matter settled and your instructor placated. Working up a bibliography seemed onerous, like lifting a dead weight, but grew in the end even interesting. When you found something definite to read on your subject, you felt reassured. Reading, in fact, became rather exciting. The subject opened up. Of course, sifting the information and taking notes was bothersome. At first it seemed like fumbling in the dark, but your instructor came to your help, and you began to get a little light. Presently this part of the work also became interesting though rather exacting, like playing chess or bridge. When you came to do the necessary field work, and to try out your ideas on the class, you again felt awkward and timid, but a little proud of yourself when it was over. Shaping the plan was a trial, because there was so much that you had to cut out, so many gaps to fill in. It was hard

to make things come to a head, but you got it done. Then you sat down to write, and at first that was uphill work. You had to push your pen hard. You had to resist the feeling that this was beyond you, and that you just never would learn. After a while, it began to come easier. You forgot yourself, forgot to eat, forgot everything, were carried away by your own thoughts flowing out on the paper. Afterwards there was a bit of a let-down, but now that is over. By this time you have the job in hand and are going on perhaps a little grimly to hammer it into shape. Ahead of you lies the final peculiar satisfaction of the writer, of the technician, in his completed work. You have taken the material, applied your powers to it, seen what to do with it, and done what you wanted. You have got your effect.

The result is a sort of pleasure which is hard to describe. It has something of the quality of physical relish, like a long cool drink when you are hot and thirsty, but it is something more. It is the kind of mental enjoyment called aesthetic. It is what you feel after you know that you have done a successful high dive, built a substantial house, painted a fine picture, in other words, overcome all difficulties inside as well as outside yourself, and executed your intention. There, in the eyes and minds and lives of people, is something new, you can say, and *I* did it, I with the stuff I had to work on and the strength

I had to work with. Such is the pleasure of the artist, a pleasure not confined to artists in the narrow sense but just as attainable by carpenters, philosophers, bankers or engineers, and by writers like yourself.

An additional point of interest in the pleasure that comes from doing a thing yourself is that you thereby come to enjoy increasingly what has been well done by others. You can appreciate what it means to do a thing such as you have tried to do. You may not be a great author or a great engineer, but you know what it feels like to write books or to build bridges. When you read a book you can imagine how the author wrote it, you can almost imagine writing it yourself. You can see how the bridge was put together, swung over that river, anchored to that cliff. You can perceive the problems which author and engineer had to solve, and you can the better enjoy the method and skill by which they solved them.

But technical skill is not only a source of pleasure. It is also a source of great power. We cannot remind you too often that to be able to write is to command one of the most universal means of getting things done. The technique of words is, indeed, so universally used that we sometimes forget that it is merely a technique. Ordinarily, when we think of technique, we think of that used in building engines, or in running machines, railroads and ships. But there is also a power to move men, to make them do what we

wish, attempt noble deeds or, it may be, wage ignoble war, or merely buy ignoble things which they do not need and would be better off without. One old writer says of this power of words that it will draw old men from the fireside and children from their play, and lead them to do what otherwise they would loathe to think of—old men and children, and men and women of other ages too. How we live, how we think, how we vote, what we buy, what we enjoy, what we do in the multifarious activities of life is in a large measure the result of the influence upon us of words woven together, as you have been learning to weave them. If you can weave words together effectively, you can command this kind of power. But if you do not know how words can be made to become a form of command or even of compulsion, you are likely to be victimized by them. Demagogues will get your vote. High pressure salesmen will make you buy. Slick talkers and smooth writers will make a fool of you in countless ways. The art of rhetoric in one form or another will make the worse reason appear to you the better, and your latter end will be at best a kind of sheepish futility.

The power of words, the technique of writing, is a great power. Like any great power—fire, electricity, dynamite, compressed steam—it can, therefore, be a great danger. It is not the business of this book to tell you what you ought to say when you write. This is a

technical hand-book and not a sermon. But we wish you not to misunderstand our purpose. In spite of what has been said, you might be inclined to suppose that all there is to writing is to get a favorable response from your public. You might be inclined to think that it does not matter what kind of public you appeal to and what sort of appeal you make. Although we have said that you should try to learn writing in the same way in which you might learn plumbing, we do not wish you to assume that writing is simply a kind of menial trade.

The art of writing, you have been told, is the art of making your reader think and feel about your subject the way you think and feel. How, then, do you think and feel about it? Honestly or dishonestly? Nobly or meanly? The question is, of course, one that lies between you and your intellectual conscience; but if your attitude toward your subject is askew, there are plenty of people who will be able to tell. One thing is certain, the best writer in the long run does not decide what his subject or his attitude toward his subject are to be according to what his public likes or dislikes. He does not take up a subject merely because he thinks "it will sell," and he can "put it over."

Must you or must you not, therefore, "give the public what it wants"? We have insisted that you think of your public, consider its point of view, remember it every step of the way. Let us insist now

that you not only think of your public, but that you think well of it. If you give your readers Mother Goose, they may react as children, if they let you make children of them. If, on the other hand, you give them the theory of relativity, you may make them the intellectual kindred of Einstein. Make sure of your own understanding of your subject. Think it out clearly. Then utilize to the utmost the technique of writing to make your readers understand you in the way in which you wish to be understood. Your readers will take the best you have if you are able to give it. Give your reader what he wants, therefore, but out of respect for the public and for yourself, assume that he is fully as intelligent, if not so well informed, as you are yourself. Of course, to make people understand a subject like relativity is difficult. It is difficult to do the high dive, but life is more fun if you are trying to do the high dive or Einstein, even if you fail.

It all comes down to this: if you want to reduce an art like composition to vulgar or even to dangerous uses, nobody can stop you. In learning to practise the art, however, you can also learn to do decent and useful things with it. Better than that, you can learn to do them with a certain joy in the doing. Of all the reasons for living, perhaps this quality of enjoyment in what we are doing is the one of which we can be most certain.

CHAPTER XI

MAKING SURE OF THE ARRANGEMENT

I

After you have set your draft aside for a day or so, you will be able to examine it more as if it were not your own, and to make whatever changes seem advisable. That is, you will be ready to begin the process of revision.

When you start, don't dilly-dally. Don't bother about the opening. Don't bother about the way you have prepared your readers for what you are going to tell them. Don't bother about the words they may not understand. Don't bother about the manner in which you have put your subject. Don't bother just now about anything except the points you have tried to make and the order in which you have tried to make them. Consider only the scheme you have employed in its relation to your material and to your public.

Go back to your plan. Whatever it is, you adopted it because it seemed inevitable. You *had* to follow a certain sequence. For instance, suppose that you have written on the country physician in the nineteenth

century, and have represented the type by the career of your own grandfather. In this case you could hardly avoid taking as your trial topics: his education at the village school with its old-fashioned master who, on the warm Saturday afternoons, piloted a few enthusiastic followers along the neighboring creeks in search of beetles and butterflies; his training as an apprentice in the next town under a local doctor, with whom he "rode," as the saying ran, for six long years; his equipment as a practitioner; his services to the community; his popular reputation as a diagnostician; and his place in the development of the art of medicine in America. Even when you made your draft, this arrangement seemed entirely logical.

As you go back, however, you may discover that parts of your article do not hang together. Something doesn't jibe. All goes well up to a certain point, but there your ideas suddenly halt. One paragraph appears to break off abruptly, and the next seems to have no connection with anything that has gone before. What has happened is that, in spite of the fact that you planned the order of your points in advance, you have somehow interrupted or changed the scheme with which you started. Something has been left out, or something has been shoved in at the wrong spot. Before you do anything else you must restore the procession of your thoughts. In order to work efficiently, review what you have written. Pick out the

chief steps or principal parts and shift them about until you find what is out of place or superfluous. Then make the necessary adjustment.

For instance, the scheme which has been suggested by the nature of your material, and which you have laid down for yourself, may, as was pointed out in Chapter IX, be one of time or the statement and explanation of events in the order of their occurrence. If your interest in migratory fish has led you to choose as your subject the life history of the salmon, the word "life" or "history," suggesting a succession of happenings, has doubtless led you to employ a chronological arrangement. In your article, therefore, you have probably begun with the time when the female ascends the rivers in the spring or summer to spawn on the gravel beds in the shallows, and you have gone on to the time, two years later, when, six or seven inches long, the young salmon starts out on its first voyage to the sea. Consequently, if any of the parts do not hang together, you can discover what is wrong by asking yourself whether each phase in the life of the salmon as you have portrayed it follows upon the preceding phase as described in your article. When you have discovered where you have blundered, you can soon rectify your mistake. It should not be difficult to make your explanation follow the order in which events occur in time.

In the same way, if the order you have adopted is

relationship in space, you should likewise not find it hard to shift about the sections of your draft until they slip into the proper niches. Take, for instance, a subject like the cathedral as an architectural type. However far your search for information may have carried you, whether to Rheims, St. Paul's or St. Peter's, you have naturally considered only the architectural details pertinent to the type. As you look at the generalized picture you have drawn, do you find that you have stuck to a definite scheme? Nave, aisle, choir, vaults, chapels, towers—have you turned from one to another in orderly progression, right or left, up or down, as if you were matching the footsteps of the old verger on his evening rounds, or have you jumped from vault to tower and back again to apse and chancel with no apparent reason for such incongruous association? Whatever the order in your draft—and there are many arrangements you can select—run it through until you discover whether or not you have kept to your plan. With a single order, there are not likely to be many complications. Even a beginner should do a fairly good job. But not everybody does, and you may have to make several readjustments in your draft.

Where you have had to use more than one order, you are much more likely to find that you have become a little muddled. Even with a simple subject like the cultivation of bright leaf tobacco, you may

have got into difficulty. In this case, the obvious order is one of occurrence in time, from the preparation of the soil and the treatment of the seed to the auction sale and the shipment to the warehouse. The sequence by itself is simple and not hard to handle. As it happens, however, you have had to vary it not once but many times. You have had to turn aside to describe greenhouses and kilns, where the logical order is relationship in space, and also mechanical contrivances, like sterilizers and planters, where the order is more intricate and confusing. If things don't seem to hang together, therefore, you will probably find, when you examine your draft, that after you got off at one of these junction points, you never got back on the road again. In revision, your first business should be to make certain that you have been consistent in your scheme.

Consistency, however, is not sufficient. Since you are writing for your public and not for yourself, make sure that your scheme will be as clear to them as it now is to you. Compel them to see it. They should know where you are taking them, how they are going, and when they arrive.

Have you indicated your purpose? Have you taken your readers into your confidence and told them where you expect to take them? Have you made your announcement an invitation and not a snub? Since you are planning this trip in the airplane industry

or in the literature of the Middle Border because you think you will enjoy it, you will naturally want your readers to enjoy it with you. Have you put things, then, in such a way that they will be eager to accompany you? Have you kept your aim before them? Have you made certain that they cannot forget it?

Don't let them get lost between steps. Now that you have made sure of the sequence, make sure they see the connection. Make certain that each paragraph points to the next. If you are afraid that the transition may not be clear, don't hesitate to round out one paragraph with a sentence equivalent in meaning to "This, then, is what I have said," and to start the next one with "It follows, therefore," and so on. See to it now that you have employed whatever phrases are necessary to make obvious the relationship between the various steps in your article. You may even go further. At junction points you may actually stop and say in two or three sentences grouped by themselves, "Now this is where I have taken you, and this is where I am going to take you." Never let your readers get off the track. Since this is a personally conducted tour, it will be a disastrous business for them and also for you if they take the wrong route.

It will, indeed, be disastrous if in the end they miss the point of your article. Don't give them the

chance. When you reach your destination, make sure that they recognize it. Announce that you have arrived at your goal. Recall your purpose. Say it not in one way but in many ways. Drive it home in words your public knows. Show them what it means to them. Make certain that they see what it means to others. Unless you have insured all this, you have not done what is most essential in the revision of your draft.

Begin the revision of your draft by seeing that you have followed a consistent scheme, and that each part is clear in relation to every other part.

II

When you have seen to it that the arrangement is consistent with itself and apparent to your readers, it will be time enough to think about the length of what you have written. This is a matter which you must consider before you finish your revision. In the case of the professional writer, the length of his manuscript is often fixed beforehand. He knows the magazine for which he writes accepts only articles that fill a certain number of pages, or that the house which issues his books maintains a definite policy regarding the size of its publications. In many instances his cloth is cut for him, and he has to pattern his suit accordingly. In the same way the

length of your article has been fixed for you at from three to five thousand words. This is long enough to give you room to develop your ideas and short enough not to weary your public.

You may, perhaps, discover that what you have written is too short or, more likely, too long, and that you must cut down or build out your draft. Whichever is necessary, don't strike out whole paragraphs arbitrarily or merely tack on others at the end. Work with a purpose. If your article is too long, you will probably shorten it anyway by eliminating words and phrases according to the advice given in Chapter XIII. But you may have to throw out some of your material as well. If your article is too short, you will, of course, have to expand it.

To cut down or build up your essay effectively, work always from the main points or principal steps. In the light of what you now know about your subject and your public, study the amount of space assigned to each of these points or steps. Mark clearly where each begins. If you have not already done so, formulate in a single sentence the function of each and set it down in the margin. Under each of these statements indicate the approximate number of words you have used, and then ask yourself whether they take too much, or too little space. Have you maintained a due sense of proportion? When you examine in this way the results of your work, you may, per-

haps, be inclined to wonder whether or not you are altogether lopsided. Though you can now see that your main headings are almost equally important, you may find that to one you have devoted only a few sentences and to the others several paragraphs apiece. But you need not be discouraged. Older workmen than you make the same kind of mistakes. Instead of throwing up your hands, try to find out what is wrong.

Two things may be wrong. You may have become so much interested in some parts of your subject that you have neglected others. Or it may be that you do not know enough about any of them. More likely, however, you know all that you ought to know, and your draft needs nothing but pruning.

There may be a good deal of dead wood to hew out. If this is your only trouble, take your pen or your pencil and hack away. But hack to some purpose. Don't slash off so much from your article that you will cut the life out of it. Don't eliminate anything that is essential. Keep your steps in mind and work from them. Do the rough labor only and wait until later for the final trimming. If your subject has merely run wild because of your interest in a particular aspect, you can soon establish the symmetry inherent in your material.

If, on the other hand, it is clear that you really do not know what you should about parts of your

subject, that you have not yet seen it as a whole, turn back at once to the sources you have explored. Look over your bibliography, ransack the library, search the museums, quiz your friends, follow through again the routine you have already traversed. What you have done on a large scale, do now on a small scale for each step that needs to be built up. When you get your material, put it where it belongs. The lines, the margins, the backs of your sheets will give you plenty of room. Use them, and don't be afraid of making a mess where you are working. You can clear up afterwards.

It may be, if you have to build up, that your trouble is not due to any lack of material but to the fact that you don't know how to use effectively what you do have. Since citations, illustrations and quotations are the devices generally employed by writers to round out topics that need amplification, you had better see how you have handled those you have already used before you venture to introduce any more. Turn back, therefore, to the beginning of your draft, and scrutinize the devices of this sort that elaborate the steps with whose length you are not satisfied. Though they fill the right amount of space, do they fill it most efficiently? Test each group in turn.

Try your citations. Are they pertinent? Do they seem to fit in? Do they light up the ideas you are

trying to explain? Does your reference to the railroads of Australia or to the hydroelectric systems of Canada clinch the point you want to make about government ownership? Does your mention of Clyde Fitch or Eugene O'Neill validate your aside about the American drama? Often citations of this character, instances raised in passing, will be sufficient to stir the imaginations of your readers and set them constructing for themselves parallels that will support the position you are trying to establish.

In many cases, well developed illustrations may be advisable. This is especially true where you are dealing with what is strange or unusual, or with what is abstract or remote. Under these circumstances, nothing is more helpful for your readers than to translate what you are trying to make clear into terms of experiences that are familiar or customary or concrete or immediate. If you glance at the chapters in this book, you will see at once that this is exactly what the authors are trying to do. They are trying to show you, by reference to what you know and can do, that writing, which may have seemed a mysterious and difficult business, is really quite rational and simple after all. In the same way a physician, describing a new anaesthetic, may remind you that you have heard of twilight sleep, and an orator, to make you realize the effects of monopoly and greed, may carry you into the homes of those

who have suffered from them. Such illustrations are not introduced at random. They are selected for a purpose, and they are justified only if they serve that purpose.

Do your illustrations serve their purposes? Why have you used them? Is your subject strange or unusual or abstract or remote? Do your illustrations make it seem familiar or customary or concrete or immediate? Is there sufficient justification for those which you have used, or have you merely lugged them in because they happened to occur to you? If they are justified, have you developed them logically? Do they run parallel with the facts you wish to reinforce, or do they part company immediately and ramble off on a journey of their own?

What about your quotations? If you remember the speech on the Constitution delivered at commencement by the valedictorian of your class, the speech beginning with what Washington said at his inaugural and ending with what Wilson said in one of his books, you probably do not need to be warned against too much quoting. As a rule, avoid it, for the very reason we have avoided it in this book. We might tell you what Franklin said about the need of practice in learning to write, and what Stevenson said about the value of imitation, but we doubt whether you would be greatly excited about their do's or their don'ts. Since these do's and don'ts

would appear to come from the outside, they would destroy the illusion of talk we have tried to maintain. We have, of course, read both Franklin and Stevenson, and possibly some of the crumbs from their tables are in the dish we have set before you; but at any rate we have cooked it ourselves. It is not a hash of odds and ends scrambled together for the occasion. Can you say as much about your own work?

Naturally, since quotations are often adroitly used by good writers, you would not expect never to employ them. In some cases you must employ them; for in some cases they are the best of illustrations. Where you are dealing with literature as such, you can hardly escape the necessity of using them. If you want, for instance, to stress the rhythm of Amy Lowell or the naturalism of Robert Frost, you will inevitably refer to a line or a stanza, a phrase or an image, in *Sword Blades and Poppy Seed* or in *North of Boston.* But see to it that your quotations are as short as possible. Instead of several of considerable length, complete poems or paragraphs, use instead a larger number of shorter selections, couplets or sentences. They will be infinitely more effective. Even as illustrations, however, never use quotations unless they are essential; and even if they are essential, pick only those that are most significant. If properly chosen, half a dozen passages of a few words each will do more to characterize the form and reveal the

spirit of a poet or a novelist than a score of pages ill-adapted to the purpose. If you have used quotations in parts of your draft which do not need to be built up, make certain that they do characterize or reveal, and that they are as brief as they can be made.

By this time it should be clear how you ought to proceed in building up the parts of your article that need to be extended by citations, illustrations or quotations. Turn again to your public, and ask yourself what is strange or unusual, abstract or remote, in each step that needs to be filled out. When you have solved this problem to your satisfaction, you will be ready to solve the larger one. Ask yourself, next, whether your public is familiar with facts or ideas comparable to those with which you are dealing; whether their experiences have made them accustomed to parallel developments in other fields; whether your readers can be made to apply a generalization to a particular case; or whether what occurred a thousand years ago or a thousand miles away can be translated into terms of 1929 or of Indianapolis. Your public may know little about the Russian Revolution, but they know a great deal about the American Revolution. They may not have heard much oriental music, but they are familiar with the elements of occidental harmony. Your readers may find it hard to conceive of liberty as the basis of civilization, but they hold decided opinions on cen-

sorship and the Volstead Act. They may never have seen the Valley of the Nile, but they may have crossed the Great American Desert. There are few points which you will wish to make that you cannot illuminate in this way.

Though this part of your task ought not to puzzle you when you once get started, there are a couple of pitfalls into which you are likely to stumble unless you are careful. Do not be tempted to patch up parts of your article immediately. By this time you have lost your feeling for the whole design, and anything you do will be a botch. In considering the citations and the illustrations you may wish to use, merely set them aside, in the form of reminders. Don't develop them. Good citations and good illustrations always fly up like sparks. They won't come until you have hammered your subject hot again. You are only beginning. By the time you have worked over each step, you will have pounded your subject once more into pliable shape and again got yourself into the glow of composition. Don't start rewriting until you are sure that you are warmed up. Don't start, either, until you have run over the whole draft to get the feeling of it again. When you are ready to go ahead, don't watch for the citations and illustrations you have noted. Those that are really apt, that are really what you need, will take care of themselves. If they are the right ones, they will spurt up from under

your fingers as soon as you set your pen or your pencil to your manuscript.

This will also be true of your quotations. You will seldom have to hunt for them. Those that are really appropriate will be so obvious that you can hardly avoid them. Keep them short, and use them seldom, chiefly to give point and flavor to what you say. If you find them rounding out your steps with a flourish, don't be afraid of them. They have crept into your article because they belong there.

In revising your draft, mark in the margin where each step begins.

State the function of each step as briefly as possible.

Indicate in each instance the approximate number of words which you have used.

Cut out all irrelevant material.

Note the citations, illustrations and quotations which you think might be added to build out the steps that seem too meager.

Prune, fill up and rewrite your draft.

III

Your article is now roughly drafted according to a definite plan. When you have made sure that each step comes at the right place, you have, of course, made sure that your scheme has been carried out and that, taken as a whole, what you have written

is well ordered. From now on you are not likely to make any shifts in the arrangement. If changes that seem advisable occur to you, make them by all means; but you had better assume that none will be necessary. You had better go on to consider each step as an independent unit and scrutinize it by itself as you have already scrutinized vour article on a larger scale.

Make certain, however, that you know what you are going to do before you begin to immerse yourself in the details of such revision. Don't start to tinker with paragraphs, sentences and words until you have mapped out a plan of campaign. Go back once more to your topical headings. As you look over your draft, you may find half a dozen or more steps of five hundred or a thousand words each, with the subject of each step set down in the margin. These are exactly the places where you should start to make sure.

Make sure, first, that your readers will know where each step begins. Since each deals with a particular aspect of your subject, you can call attention to it by indentation as a kind of road sign. Don't rely, however, on a mere appeal to the eye, valuable as it is. In making sure that your readers will follow the arrangement you have adopted, you have probably taken the advice given earlier in this chapter and ordered the sentences at the end of one step and at the beginning of the next in such a way as to form

a link between the two. Examine your introductory sentences to make certain that each leads directly to the material which follows. In this way you can make doubly sure that your readers will not get off the track. Somewhere, somehow, you must point out what ground, what part of the subject, has been covered in each step. As already explained above, it is not necessary to do this formally. You don't need to say, "I now intend to proceed with such and such a topic." You don't even need to state your topics. But unless you want to surprise your readers—and, of course, you may wish to do this very thing—you had better see to it that the material covered in each step or section is immediately apparent.

After you have made sure that the content and hence the function of each step will be obvious to your readers, you will be in a position to consider the arrangement of the material within each section. You have already taken a long view of your subject. It is now time for a series of short views. Is the material in each step ordered as logically as you have ordered your article as a whole? Does it march forward directly? Does it arrive? Look at the last sentence and see whether it jibes with the first. Unless it represents the goal towards which you have directed your readers, you had better turn back and go through the step as you have gone through your draft. As with your general scheme, you should have followed

some kind of order, either of time or space or interest or familiarity or importance or something else. Whatever it may have been, trace it out by marking off the subdivisions as you come to them, or by underlining the words and phrases that serve as turning points. But don't do any of these things mechanically. If you have followed a definite plan throughout the article as a whole, you won't need to spend much time on this part of the work. Nevertheless, the time will be well spent because it will help you to make the best grouping of the subdivisions in each step.

It would be logical, if not entirely conventional, to set off by indentation each of your five or six or more main steps in order to show your readers by the appearance of the page that you have reached another station on your route. In practice, however, most writers prefer to help their readers to pick out at a glance not merely divisions but subdivisions as well. You will also doubtless find it advisable to make a good many indentations between your principal divisional points—that is, to break each of your steps into several paragraphs. But be certain that there is some justification for doing so. Don't stop suddenly in the middle of things, dumping your readers out in a swamp or a pasture field.

No one can tell you definitely how many such stopping places or paragraphs you should have in one of your divisions of a thousand or fifteen hundred

words. A stretch of two hundred and fifty words is, however, usually long enough. On the other hand, don't make the mistake of chopping up the material in each topic into so many paragraphs that the effect you wish to produce will be blurred by the amount of indentation. Don't stop at every siding. It is as easy to confuse and weary your readers by making your subdivisions too short as by making them too long. Strike a balance, and don't be afraid of a little variety.

If you have had some experience in such matters, you have probably grouped the sentences in your steps into fairly harmonious units. All you need to do now is to make sure that those you have brought together in this way belong logically with one another. If they do, they have probably fallen into some kind of orderly sequence. In case you are uncertain about the proper arrangement, examine the sentences or words you have underlined, and see whether they will not give you the necessary clue.

At the beginning, for instance, your statement of purpose may stand by itself. If you have given special definitions of any of the terms which you have used, it may be well to put these definitions also by themselves. With a word like *bolshevism*, for example, you may have to mark off its limits by showing how it differs from other *isms* that have for their end the betterment of society. Again, you

may group a series of details related in time or space, such as the events of the first month in the life of the salmon or the various parts in the transept of a cathedral. Or you may wish to emphasize your illustrations or your quotations. When quotations extend to more than two or three sentences in prose or a single line of poetry, they are usually put by themselves. If you follow a similar arrangement, you will make it easier for your readers to distinguish between your words and the words of others. For this reason the different speeches in a conversation are always indented. Remember, however, that paragraphs are not made by indentation; they are made only by arrangement. But if you have stuck to your scheme and constructed your divisions and subdivisions so that they form a series of logical units, indentation will help to distinguish them. Since your readers will expect this convenience, you should follow the usual practice.

See that the subject of each step or division in your draft is apparent to your readers.

Make sure that the arrangement within each step or division is clear.

Indent at convenient intervals, not too frequently nor too seldom, in order to make more apparent the principal divisions and subdivisions of the thought.

CHAPTER XII

MAKING SURE OF EACH SENTENCE

I

If you have been trying only to make your reader understand, your sentences have probably formed themselves clearly without your having to think about each one as you wrote it. But you had better now make sure by testing their grammatical structure and their punctuation. Grammar and punctuation are not mystical, absolute, eternal, sacred and apart. They have not always been the same, and they will not always remain the same. They are conveniences for aid in communication, and as such they are of value only so long as they serve their purpose. When they function smoothly, no one notices them. When they do not function smoothly, they are an interference to the thought. Since the reader cannot be expected to remove the interference, you, as the writer, must prevent its occurrence. In order to do so, however, you must know how sentences are constructed and how the mechanical device of punctuation is used to make the structure immediately apparent to the mind through the eye of the reader.

Language serves to communicate meaning in two ways, by words and by combinations or groups of words. Concerning words considered by themselves we shall have something to say in the next chapter. But in all languages certain things are true both of words and of grammar or the grouping of words. The meanings of words and the ways of grouping words are the result of habit, association and use among the people who happen to grow up with the language in question. We learn by intercourse with other people what words to use and how to combine them with other words, just as we learn habits of pronunciation, of diet and of dress. As in the case of other social customs, habits in language differ with different people and change among the same people from generation to generation. There is, strictly speaking, no such thing as an English or a French language which was established at some time or other and which remains forever the same. There are merely sets of habits in communication, which behave like all other habits. That is, they vary and change.

So long as these habits do not differ so much from place to place and from time to time that they cease to be understood, people are said to speak the same language. The advantage of having a language to use which can be understood by many people of all kinds is obvious. For this reason it is worth while to make an effort to offset the natural tendency

of language to be constantly transforming itself into different dialects or even languages. In the case of English, this is especially true. We who use it in America are spread out over almost an entire continent. Other English-speaking peoples are spread out to the four corners of the earth. Unless we all take pains to keep our language from changing too much, we shall lose the immeasurable advantage which English now gives to each of us.

This is why we formulate our habits of speech in dictionaries and grammars. But try as we may to make this changing, varying system of communication as stable and uniform as possible, we find it so difficult to succeed perfectly that we grow dogmatic and impassioned about the business. We declare that you must not say "like I did," or that you must always say "different from," never "different than," though we are compelled to admit that the British also say "different to." As a matter of fact, people will always say anything they please, or rather anything that pleases the social group with which they identify or hope to identify themselves. The meanings of words and the laws of grammar are not in the ten commandments, nor have they been established by act of Congress. You have as much reason as anyone else to insist that your way is right, and you will insist that it is right if you are provincial or pedantic or cocksure.

No one can stop you from knowing the language of your locality or of your own social group. You cannot stop yourself. But if this language has peculiarities which are unintelligible to people of other places or groups, you will be at a disadvantage. For your own convenience, therefore, learn how to use the form of English generally intelligible to most people everywhere. There is such an English, an approximately uniform language which is understood easily by all educated persons. What is said in dictionaries, grammars and textbooks—what is said in this book—is a safe enough guide to this standard usage, even though authorities differ among themselves. The best usage, however, is always that of the best people. Who the best people are, your own taste, common sense and observation must decide for you. In any case, don't make yourself unhappy or tiresome to others about this matter. If you know your subject, if you think your ideas through, if you write to be understood, if you avoid self-consciousness, pedantry and dogmatism, language will very largely take care of itself.

Nevertheless, as a careful writer, you had better test your sentences to make sure that they will be clear to readers accustomed to the usages of standard written English. You should understand what happens in a sentence. A sentence is not a mere string of words. Words in a sentence are linked to each

other in what may be called thought-groups, such as clauses and phrases. These thought-groups are in turn joined to make sentences, each of which states a thought complete in itself. The principles by which words, phrases and clauses are linked together to form sentences are the laws of grammar. Grammar is the unconscious habit by which the reader of the sentence puts all the parts of it together in his mind to make the meaning. If his habits are precisely observed and followed by the writer, the reader thinks only of the meaning. If not, the reader has to think of the grammar not of the meaning. It is to the writer's advantage, therefore, to keep grammar out of sight and out of mind. Grammar is the road on which the train of thought runs, with commas, periods, semicolons and the like to signal where to stop or turn. When the road is in good condition, and the signals are all working, the train runs so smoothly that you forget about the road altogether. When the road is rough or the signals out of order, you slow up or bump along or run off the track. You must see to it that your sentences give the reader's mind a clear road to the meaning which is their destination.

But to go through what you have written and inspect each sentence by rule of thumb will do little good. Teach yourself to read your own work as though someone else had written it. Try to understand it yourself. Listen to the sound of it. Read it

out loud. Read it to somebody else if you can get anyone to listen to you. For testing the effect, depend primarily on your own unconscious sense of grammatical structure. Sharpen your sensibilities to the flow of thought from sentence to sentence and from word to word. Feel for every awkward phrase, every crack between clauses, every heap of verbiage, every ambiguity. When you come to a place where attention stumbles or flies off, make a correction or, better yet, make a mark in the margin. Then come back later and clear up the difficulty.

That is when you will need to know your principles of grammar. Knowledge of the principles of grammar will not help you to make sentences, but it will help you to find out what is the matter with them when they go wrong. That sentence, you may say to yourself, sounds queer or clumsy or obscure. If you are not satisfied with it, don't twist it about and try how it sounds another way. You may make it worse. When your engine goes dead, don't monkey blindly with it. Remember how it is put together and locate the trouble. Think how your sentence is constructed, take it to pieces, and see what makes it miss fire and stall. Have you a misplaced modifier or a disagreement of subject and verb or a squinting pronoun or a dangling particle or an improper coördination or some other bothersome derangement? When you

think you have found the trouble, correct it. Go back several sentences, try the whole passage on your ear again to make sure that at last it sounds right, and then go on. Though this may seem like a slow fussy job, take your time and work intelligently; you will gain speed all the sooner as a result. In time the writing of clear sentences will become second nature to you. You will have fewer corrections to make, or you will make them automatically, as you do other things, even while composing the rough draft.

This procedure will help you to make your sentences clear in their fundamental structure. It will not, necessarily, help you to avoid certain deviations from standard usage which have little or nothing to do with clearness of thought. Your thought may be clear, and your sentences may be clear, in spite of the fact that you split infinitives and say "liable" instead of "likely" or "aggravate" instead of "exasperate." Though these are errors in taste, they are not significant in the business of writing. Don't concern yourself about them unduly or devote attention to them which can be better put elsewhere. Notice such mistakes in your use of language, and make the most of your instructor's admonition when he points them out; but never suppose that they are more than minor details. If you learn the fundamental things about writing, you will probably learn these minor mat-

ters too. Make sure now that you are saying what you mean. Make sure later that you have satisfied the conventions of good usage.

Revise your article for clearness of sentences.

Read it over aloud, and mark the sentences which are not wholly clear.

Don't guess at difficulties; learn to diagnose them.

II

When a sentence sounds wrong, obscure or clumsy, the difficulty is probably in its construction. To remedy the trouble you must find out where the fault lies. Merely to shift the words about with no clear idea of what you are doing may merely make matters worse. You must understand the principles on which sentences are built. These laws of construction are grammar. If you are not yet sure about the grammar of an English sentence, ask your instructor to recommend a book which will enable you to review the subject. In these pages we shall try to show you how a good workman uses grammar for the purpose of straightening out his sentences.

The writer who has a sentence that needs mending should bear in mind what a sentence and each of its parts is supposed to do. There are names for these parts and for their functions, but grammatical nomenclature is not exact or clear, and you should avoid

entangling yourself in mere terminology. Defined simply but sufficiently, a sentence is a group of words in which a verb generally asserts or predicates something about a noun, or about a word or group of words representing a noun and called a pronoun, a noun phrase or a noun clause. Adjectives and adverbs accompany other words in order to define, qualify and change their meaning. Words and other elements in the sentence are linked together by prepositions and conjunctions. These are the principal single parts of every sentence.

There are also certain composite parts, made up of single words grouped together, each group used precisely as a single word would be used. These are usually called phrases and clauses. In a phrase the group of words makes no assertion or predication; in a clause the group makes a predication that is in some way subordinate to the assertion of the sentence as a whole. Phrases are attended by prepositions or participial forms of the verb, clauses generally by conjunctions. Always remember that phrases and clauses may act in the sentence precisely like nouns, adjectives or adverbs. Remember, also, that any two or more complete statements, whether sentences or clauses, may be connected one with another by a special kind of connecting word. They are then called coördinate clauses, and the connecting words are called coördinate conjunctions.

You do not need to know all these terms in order to write clear, straightforward sentences. Competent writers are often unable to call the parts of a sentence by their conventional names. But it is no less true that every competent writer understands in his own way what the parts of a sentence are and what each one does. This is all *you* have to worry about.

When a sentence has gone wrong, the first thing to do, therefore, is to identify in your fashion all its parts. Find its subject, its predicate and its modifiers, whether words, phrases or clauses, and make sure that you understand what each is doing in the sentence.

The second thing to do when tinkering with a troublesome sentence is to make sure that you have suggested clearly to the reader how these working parts are to be instantaneously and unconsciously combined in his thought to produce the meaning you intend. To achieve this purpose, two devices are available: first, *inflections* or changes in the forms of individual words, and, second, *word order*. By these two means, you can indicate which words are to be put together with which other words so that, taken together, they may be understood to say what you wish to have said. Consequently, when you have identified the parts of your sentence, you should next examine the way in which you have combined these parts into a whole.

Look first at your word forms or *inflections*. They will probably give you little trouble. English-speaking people have discarded many of the inflections they formerly used and have simplified greatly those which they have retained. They have kept certain inflections to indicate person, number, case, tense, gender and the difference between adverbs and adjectives. Ordinarily you will not go wrong if you follow your own unconscious habits in the use of these forms. But, perhaps for the reason that we should instinctively like to get rid of the few inflections remaining, we sometimes make slips. You should learn to recognize these errors. Then, when your sentence calls for revision, you can pick them out promptly and set them right. Those of most frequent occurrence are as follows:

You may have trouble with your *verbs*. Make sure that each verb agrees in number, singular or plural, with its subject. Make sure that, when you have used one tense of the verb in one clause or sentence, you have used a corresponding form in the next. This is particularly important in long sentences containing a number of clauses. Look out for *shall* and *will*, *should* and *would*. English-speaking people have never been quite certain what differentiation they intended to make in the use of these forms. The rule which has been formulated does not wholly fit the facts of usage, but you had better follow it

as well as you can in order not to offend the taste of the people you may be writing for. The most troublesome of all the verb forms is the *participle*; but as we shall explain later, the trouble with participles is chiefly that we tend to put them into the wrong place in the sentence.

You may also have trouble with the difference in form between *adjectives* and *adverbs*. The simplest way of making an adverb is to add *-ly* to an adjective. But we do not always observe this easy rule. About certain of the most common of these words, we prefer to be quite illogical. We never use *good* as an adverb, if we follow the best taste; we use *well* instead. But we also use *well* as an adjective. We never add *-ly* to *fast*, and sometimes we do not add it to adjectives like *slow* and *right*. We dislike adding *-ly* to adjectives which end in *-ly* like *goodly* and *silly*. Any rule you could make up to cover difference in form between adjectives and adverbs would be too complicated to be of much assistance. You had better observe and follow the usage of the best people.

The most troublesome by far of inflected forms in English are the *pronouns*. Many of your bad sentences you will find to be bad merely because a pronoun has got out of hand. This, as in the case of participles, may be due to wrong position, but it may also be due to a mistake in form. You may have used *I* for *me*, *she* for *her*, *he* for *him*, *they* for *them*, *who*

for *whom* or vice versa. Or you may have used *they* for *it* or *he* or *she* or *one*, *their* for *its* or *his* or *her* or *one's*. Again this is not so much a mistake in clearness as an error in taste.

What we have said concerning the use of inflections does not, of course, cover the whole matter, which is, indeed, a subject in itself. What you should do about inflections is merely this: When you come to a sentence which seems somehow wrong, make certain that you have in each instance used the right form of the word. Go through the sentence to see whether your pronouns are in the right case, whether your subjects and verbs agree in number, whether you have maintained the proper sequence of tenses, and whether you have used the customary forms of *shall* and *will* and of the adjectives and adverbs. You can learn to make this sort of inspection very rapidly, and you should ordinarily find little to correct. The chief trouble with your sentence is likely to be not word form but word order.

The principal means by which we combine English words into sentences to suggest meaning is *word order*. If your reader's attention is distracted from the meaning to the structure of your sentence, the cause, in all probability, is some derangement in the order of words. (It may, of course, be due to your selection of words, a matter discussed in the next chapter.) Words convey meaning not merely by

themselves but by their relation to other words, by their sequence and context. They have to be done up in packages which can be delivered intact with nothing broken and nothing lost. When one of these packages looks as though it would not travel safely into your reader's mind, examine the order in which its words have been arranged.

You must, of course, understand the order in which the reader expects the words to be delivered. His habits are your law. He expects a noun or a noun in one of its several disguises to announce the *subject* concerning which a verb will a little later make an assertion. After the subject or immediately before it, he is prepared to accept adjective modifiers of the subject and even modifiers of these modifiers, provided always that they are used in moderation. Then he will demand a verb as *predicate* to state something about the subject. If he does not arrive at such a predicate, he will be disappointed, shocked and even offended, just as though you had driven him up a dead-end street or off a high embankment. What a verb has to say may be completely expressed by itself or by words that follow, commonly nouns, adjectives and adverbs which are called by such names as *object* and *complement*. Within reason, modifiers of various kinds may, of course, be attached to the verb and to other parts of the predicate. Though it is useful to know the names which have been given

to the various parts of a sentence, it is not essential. The essential thing is to get the parts into the reader's mind in this particular order. Subject, subject modifiers, predicate, predicate modifiers, object, object modifiers—when a sentence goes wrong, the best thing to do is to identify all these parts and arrange them on a rough sheet of paper according to their logical relationship.

If all your sentences always strictly followed such a plan, they would always be clear in their sequence of words. Why not keep, then, from start to finish the plain scheme of subject first, predicate next and a minimum of modifiers? The answer is that to adhere too closely to any scheme grows monotonous. Always to dance the same step to the same tune is a deadly grind. Variations make the dance livelier and add emphasis and interest to the normal pattern. So variations in word order give life to the march of sentences. You may surprise your reader now and then by some unexpected arrangement, an inversion of subject and predicate, a thrusting of a modifier into the front place, a holding back of the main verb to the end. But this means that, while you may thus gain interest, you also run the risk of confusion. You can easily carry the variations too far and get tangled up and out of step. You will be especially prone to do this when you have gained a little confidence in your ability and have felt the intoxication

of words, the impulse to show off. There is danger, also, when you have not quite thought out what you are trying to say. Then you will grope around in your sentences because you are still groping around in your mind. Confusion occurs, too, when you feel that you must take particular pains to impress your reader. For one reason or another, you depart from the normal order and so occasionally overdo the variation. The sentence trips and stumbles, the reader grows confused by words that mean nothing to one another, and you defeat your own purposes. Thinking to put your reader through a neat syntactical handspring, you leave him standing on his head.

When you find a sentence which is correct in its use of inflections, but which is nevertheless obscure, inspect the order of the words. See whether you have not introduced so many variations and complications into the usual pattern that the reader is likely to lose track of the meaning.

Make sure, first of all, what the main idea of the sentence is intended to be. Then make sure that the main subject and predicate express that idea. If, and only if, you have two ideas of equal importance to express, see that you have put them into coördinate clauses or predicates. Inexperienced writers are prone to start a sentence with one statement. Then, without thinking the sentence through, they tack on loosely by one or more *and's*, *but's* or *or's* a number of other

statements not strictly coördinate with the first. Long, sprawling sentences full of coördinate conjunctions, especially *and*, should always be regarded with suspicion. Some of the statements made should probably be reduced to subordinate clauses or to simple adjectives or adverbs, or the whole should be broken up into several shorter sentences.

Next, make sure of your modifiers of all sorts. Though modifiers are often indispensable, they should always be used with moderation. Don't make your sentences carry more luggage than they need. Dependent clauses should carry ideas that are strictly subordinate to the thought of your main clause. They, too, may often to advantage be reduced to phrases, and both clauses and phrases to adjectives or adverbs. Adjectives and adverbs are superfluous when you can find a more precise word which will stand without their support. When you do use modifiers, as of course you must, make sure that they are placed near enough to the words they modify. Shift their position when you wish to emphasize them, but not too violently nor too often. Above all, run down those two arch-troublemakers, the participle and the pronoun.

Participles and *pronouns* have an incorrigible affinity for nouns, for the nearest noun in their immediate neighborhood. If they are not provided with antecedent nouns, they mean nothing at all, but

dangle out of the sentence, making the reader miserably uncomfortable. If the right noun is not close at hand, they invariably attach themselves to some intervening noun, and this attachment always produces an incorrect, often a ridiculous or even scandalous effect upon the reader's mind. The worst offender is *it*, because *it* has among pronouns an exceptional privilege. It may refer to an antecedent like any other pronoun, or it may serve without any direct antecedent at all, as in *It is important to watch your pronouns*. If you use *it* in both ways close together in the sentence, annoying confusion may result.

Much more might, of course, be said upon the subject of grammar, but we have now warned you of the most troublesome matters. In testing the clearness of your sentences, rely first upon your own habitual sense of sentence structure. When that sense is somehow disturbed, use your knowledge of grammar to diagnose the difficulty. When you have defined the difficulty, mend it. Then read the whole sentence over again in conjunction with those that immediately precede and follow, to make sure that in its corrected form it works smoothly in its context.

When you find a sentence in your writing which sounds incorrect, clumsy or obscure, make sure, first, that you have used words in their proper inflections and then that you have used them in the right order.

III

In addition to inflections and word order, there is still another device for making sentences clear. When you talk, you help your hearer by your voice to understand your grammar. By modulation of the voice, by accent and pause, you suggest how the spoken words are to be grouped together to make meaning. The voice punctuates the spoken sentence. In writing, since you cannot use the voice to suggest to the reader how the words are to go together, you must use marks of punctuation. Punctuation is merely a mechanical device by which, as you lead the reader along the sentence-track of thought, you signal to him from the page when the sentence or the clause stops, or when he is to switch a modifier one way rather than another. Unless the system works automatically so that its presence is hardly noticed, the reader will fail to understand quickly the grouping of your words into sentences and their parts. He will be compelled to punctuate the sentence for himself before he can comprehend what it means.

The only reason for punctuating is to enable the reader to follow the sentence structure without thinking about it. The only way to punctuate is according to the sentence structure. Don't go by feeling. Feeling is not indicated by punctuation but by the position of words in the sentence, their cadence and tone,

their power of suggestion. Don't go by modulations of the voice. The voice is used for emphasis as well as clearness. Go by the sentence structure, by the meaning you wish to convey through the grouping of words. Then your marks of punctuation will help your reader unconsciously to make the right word-groups.

If the principles of sentence structure are clear to you, the principles of punctuation will also be clear. You will not, therefore, feel compelled, in order to make your pages look right, to sprinkle in periods, commas and semicolons after you have finished writing. You will, rather, inspect your punctuation at the same time that you inspect your sentence structure. Put in enough punctuation to enable the reader to take in at a glance the grouping of your words, enough and no more. The ends of sentences, the beginnings and ends of certain kinds of clauses, interruptions to the expected order of the sentence—such points in your writing call for marks of punctuation as signals to the reader. But remember that too much punctuation applied in a kind of panic lest you use too little is almost as bad as none at all. Remember, also, that there are variations of usage in punctuation as in other things. The best plan for every writer is to adopt a single accepted scheme of punctuation and then keep consistently to that. The best plan for you, if you have not yet adopted a

scheme for yourself, is to ask your instructor to recommend one which you can follow.

Inspect the punctuation of your sentence at the same time that you inspect the sentence structure.

Punctuate your sentences according to some accepted standard, for the purpose of helping the reader to understand the sentence structure.

CHAPTER XIII

MAKING SURE OF YOUR WORDS

I

Up to this point you have put your whole attention on finding out what can be said upon your subject, selecting the things you want to say, arranging them according to an orderly and effective scheme, and doing them up into packages, called sentences, of various shapes and sizes. You will now find it wise to consider what each package contains; that is, to examine the *words* with which each sentence is expressed.

You will find it wise to do so because all this material that you place before your readers must be taken in by them piece-meal. Your words are the points of contact between your mind and theirs. If your words do not mean what you think they mean, your readers will not understand you, no matter how carefully you have arranged your material. This is a fact that we are all likely to forget. No one can swallow a whole essay at a gulp. Few persons can take in even a sentence at a glance. Most people read a sentence as a series of phrases or word-groups,

sometimes merely as a series of single words. Gradually, as they read, they fit the words together, according to the patterns the writer has used, and thus build up gradually in their minds the thought he wishes to convey.

To realize more clearly what happens when we read a page of print or manuscript, think of what occurs when we look at a traveling electric sign on the wall of a large building. Word after word flashes out of the darkness, moves along, followed by other words, and finally disappears. As they pass, we piece them together into phrases, and these at last into sentences. We cannot get the sentences unless we get the words. So with the reading of print or manuscript. If your readers are to get the point of your sentences, they must pick up the individual words and tie them into bundles according to the patterns you have employed. Unless your words are right, the reader will never see your facts and your ideas as you want him to see them.

When we think of words, we are apt to think only of their printed or written representations on paper. Fundamentally, however, words are nothing but noises, groups of sounds produced by physical contortions of the throat, mouth and nose. In themselves the sounds mean nothing. All these cries and grunts and hissings and gurglings take on meaning only as we associate them with our sensations, emo-

tions and thoughts. When we respond to a certain stimulus, when we surrender to a certain passion, when we conceive a certain idea, we make this or that noise, the particular noise that we and those like us have associated with this specific experience, and these noises we call words. Not until late in human history were marks on stone or wood or paper used to indicate the contortions we make in order to recall, to reproduce experience. Words, therefore, are not dead things, laid away in dictionaries. Though dictionaries will help, we can really learn words only by living them, by watching how we ourselves and other people are moved to combine them when we seek to represent the sensations, emotions and thoughts that result from our contacts with things and people.

It is possible, however, to cultivate a sensitiveness for words, so as to recognize more surely when we have used the right one to embody a particular idea or feeling. If you have plowed and harrowed, planted and reaped the same soil year after year, you have, if you have given your mind to it, come to know it. You know what to sow and where and when. If you play the violin, your fingers know their way about the various positions. If you drive a car, your nerves, your muscles, your hands, your feet know what every sound and vibration means and what your engine will do or not do. In every case a willing, al-

most a loving attention to the medium in which you work has given you an intuitive knowledge of the medium itself. You have, in fact, developed a set of responses that come to you at need without your having to take thought; and you can always develop the same intimate control if you are sensitive to the nature of your medium. If all soils or violins or automobiles are alike to you, you will never learn to get the most out of them or to use them in any way peculiarly your own. So with words. To master them, you must first be sensitive to them. You must know what they mean. You must know what they do to people.

Make sure, first of all, of the *meaning* of each word you have used. Make sure that it shoots straight as an arrow to the heart of what you want to say. Any other word, a second best word or a third best word, one that is too big or too little, top-heavy or lop-sided, will hit wide of the mark. Even if you pick up a whole handful of words and let fly all around your target in the hope that some of them will strike home and the others do no harm, you will unquestionably miss your shot. If you want to get a bag out of a flock of ducks, never fire at random. The only way to make sure of your thought is to make sure that each word means exactly what it ought to mean, nothing more and nothing less.

The English language is singularly rich in words.

We can say a thing in many ways, with many different effects. There are almost countless synonyms or near-equivalents such as *wheel* and *circle*, *smith* and *artificer*, *drive* and *propel*. Both words of such a pair refer to the same idea, but each one does so in a different way, with a slightly different emphasis. A wheel is a circle; but if you call it a wheel you see a wheel, and if you call it a circle you will think only of circularity. The reason why we have so many of these near-duplicates in English is the composite origin of our language. The people who spoke the old Germanic tongue called Anglo-Saxon, which is the basis of English, learned a great deal of another language, called Norman-French, and added it to their Anglo-Saxon. Later their descendants added a great many words from Latin and a smaller number from Greek. Consequently, for many things we have to say we may choose an Anglo-Saxon word, a Norman-French word, a Latin word or even a Greek word. If you have cultivated the kind of sensitiveness of which we have spoken, you must have noticed that certain words always make your meaning clearer by giving vividness and force to what you say. In most cases, if you should look up the history of these words, you would find that they are Anglo-Saxon or Norman-French. Other groups of words seem to lend themselves to the expression of general, abstract conceptions. These you would find, if you

studied their derivation, are usually Latin or Greek in origin.

The richness of our language, like every other kind of wealth, is of great value to those who know how to put it to use, but it is also a source of danger to those who do not know. Just because there are so many words in English, it is difficult to choose always the specific word that expresses the exact shade of meaning you wish to convey to your readers. Consequently, if you are not careful, you may hit on one with the wrong meaning or almost the wrong meaning or not quite the right meaning. Learn to look closely, therefore, at the meaning of the words you employ. Sort them over, as you pick out the keys on a piano when you sit down to improvise. Find the word that precisely embodies your thought.

How can you make sure that the words which you have used in your essay mean exactly what you think they mean? Well, if you wish, you may fall back on a dictionary or a book of synonyms. In them you will find lists of words together with the shade of meaning each one carries in common usage. Of course, you will have to decide for yourself whether to use any particular word in any particular instance. As we have said, you can really learn words only by "living" them, but nevertheless such books of reference will help. Go over your article, therefore, sentence by sentence. If you find a word or a phrase

that does not seem quite right, look it up and see whether you have used it in the sense in which your readers—according to report—may be expected to understand it.

It will help also, to go back to your sources and look over the passages which treat the same point. Notice the words your authorities have employed to express the kind of thought you have tried to convey in your sentence. Since your point of view is different from theirs, you will not want to borrow their words; but a glance at the way in which they have dealt with similar ideas may show you how you can be more accurate in the treatment of your own.

Examine your article sentence by sentence and make sure that each word means what you intended it to mean.

II

You will need to go further, however, in your consideration of words. To make sure that every word is used accurately so that the reader, if he looks at it carefully, will be able to get the meaning you wish, is not enough, because your reader may not be sufficiently interested to look closely. The articles in encyclopedias, for instance, are usually accurate, but they are often dull. Consequently no one reads them unless he wants to look up a particular subject. In

the same way your readers may never have thought of the origin of paper or of the colonial merchant in the American Revolution. They may not realize that both topics may be full of fascination for them. Indeed, they are more than likely to be so engrossed in affairs of their own that they will not look closely enough to grasp the meaning of what you have said. If you want to arouse and retain their curiosity, you had better select words which they can pick up without conscious effort, and which they will find pleasant to their taste.

A good way to begin to make your words interesting is to start with your title. A title should be short. It should either suggest the point of your article or it should make your reader curious to see what you say, and if possible it should do both. For example, when Long selected the title for his study of Bryan's career, he managed to crowd the pith of his story into the four words, *Bryan, the Great Commoner*. De Kruif did still better. Writing of the efforts of modern scientists to improve the world's food supply and to lessen disease, he put the essence of his book into two words: *Hunger Fighters*. A few years ago Paul Leicester Ford wrote a biography of Benjamin Franklin. Realizing that most people have a vague notion that Franklin was engaged in many sorts of activities, he appealed to their curiosity by taking for the title of his book *The Many-Sided Franklin*. In the same

way titles like *Eminent Victorians*, *Main Street* and *The Ordeal of Civilization* are meant to arouse one's wish to read.

In seeking to make your words interesting, then, begin with your title. Don't be content with the first phrase that pops into your head. Jot down a list of possibilities, five, ten, twenty, perhaps. Think of the groups of words that will express briefly and strikingly the gist of your article. After a while you will hit upon one which seems to tell most in the fewest conceivable words. It is even possible that you may strike one that will suggest at the same time the range of your subject, the material you have used and the spirit of your treatment.

If you examine the titles just mentioned, as well as those you have considered for your own article, you will come to realize, first, that they are short—the words few; secondly, that the word-groups are pungent and vigorous—the words so combined as to suggest a striking picture of some kind; third, that the individual words are simple and familiar. Go through your essay, therefore, and apply to sentence after sentence these same principles. You will find that you can make your article far more attractive and certainly far easier to read.

Begin by crowding your thoughts into the smallest possible compass. As you sort over your words, re-

duce them to their fewest terms. When you examine them, you will probably find a considerable number of *so's*, *and's*, *it's* and *but's* you do not need. Cut these out before you do anything else. After you have got rid of them, start in on the words you have left. Ask yourself whether any of them are unduly pretentious. When you first learned to talk, you used little, crisp, homely, familiar words—Anglo-Saxon and Norman-French words. As you grew older, went to school and read books, which sometimes you did not understand, you learned other words, bigger, looser, stranger words—Latin and Greek words, probably—for the same things. Getting educated, indeed, often seems like a process of learning such big, strange words; and unless these big, strange words have entered into your experience they remain merely big and strange. Consequently, if you are like many college students, you have probably used in your article many vague, abstract, pompous, polysyllabic words, not really a part of you, instead of simpler, more direct words which are more your own. It may seem literary to say that a man *proceeded* down the street when, as a matter of fact, he actually *crawled* or *limped* or *hopped* or *hobbled* or did something else which *proceeded* covers but does not even suggest. In making sure of each word, therefore, ask yourself, in the first place, whether you need it at all,

and, in the second place, whether a smaller word is not nearer to your meaning.

Since your meaning will be conveyed in each case primarily by the subjects and predicates of your sentences, and since subject and predicate usually appear as noun or verb, watch your nouns and verbs. But first watch your adjectives and adverbs. The more the nouns and verbs do in your sentences, the less the modifiers have to do. The less the nouns and verbs do, the more the modifiers must do. Now, modifiers are, so to speak, cheap. You can always pick up a so-so verb, for instance, and string a number of modifiers around it if it does not suit, but a thought so expressed will have no cutting edge. This is not to say that adjectives and adverbs should not be used. They must be used; for they are, of course, essential to effective writing. But they are easily overworked and therefore easily abused. Until they establish their innocence, they should always stand suspect. To make your meaning clear, therefore, rely primarily on your nouns and your verbs. Make them work.

Make each noun work. Don't be satisfied with a noun that takes in half the universe. Less than that will be enough. Keep on whittling until you get rid of every adjective you do not need. Your "little lake," after all, is really a "pond"; your "workingman's home," a "cottage"; your "popular song,"

a "ballad"; your "mathematical expression," really a "formula." In making sure of each word, make sure that each noun works.

Make sure, also, that each verb works. For this reason, cast most of your verbs into the active form and fight shy of using many passives or participles. Except in the case of *be* and a few other verbs with similar functions, every verb is potentially a *doing* word. Let your verbs make assertions—positive and unmistakable assertions concerning the subjects of your sentences. Verbs should carry much of your meaning and maintain your reader's interest. If your writing is feeble, dull and obscure, the probability is that the verbs of your sentences are not sufficiently clear and vigorous, or that they are not well placed, or that they are lost and hidden among too many less important words. Make them come forward. In a manner appropriate to your subject and in keeping with good taste, make them move. As occasion demands, make them skip and dance or march with force and dignity, always remembering that to be lively or to be dignified at the wrong time is as bad as never to be lively or dignified at all.

Words of all sorts, as we have said, spring from experience and enable us to share experience with one another. When you wish other people to understand you, you must use words with which they are familiar, words which correspond to something in *their*

experience. You must speak their language, adjust your vocabulary to theirs. To be sure, the ideas you desire to convey may be new to your readers, and new ideas, new experiences of all sorts, generally demand new words. There will be words you will wish to use which are of utmost importance to your subject but which will be strange or which you will use in ways that are strange to your public. Such words you must explain; you must translate them into language which already has meaning and interest to your readers. Much of a writer's effort may be said to be given to rendering new, special or technical words, vivid and interesting to other people. Words like *dynamo* and *sonnet* have definite meaning for those who already have special knowledge of engines or of verse forms. When you undertake to explain engines and verse forms to persons who lack special knowledge, you must translate words like *dynamo* and *sonnet* into terms of common experience. Much of the interest of such a book as Thomson's *Haunts of Life* arises from the skill with which the author makes us understand through the use of a homely, familiar vocabulary the special meaning which the biologist attaches to the word *adaptation*. Keith in his *Engines of the Human Body* makes the technical vocabulary of the physiologist intelligible to us by likening the subject he is explaining to matters with which we are already acquainted.

In the work you have been doing, you have been by such devices made to understand many special terms relating to your own subject. Learning these terms has been a large part of learning the subject itself. Now that you know them, you save yourself a certain amount of time and take a certain pleasure in using them. But when you address your reader, you must remember that the language of your subject may still be Greek to him, may still be what it was to you when you began. Use words in special meaning only when they are the important terms of your subject. Translate and explain such words by using other words and referring to other matters which your knowledge of your public tells you that your reader already understands.

Words of another class that may make trouble for you are the colloquial expressions on the borderline between slang and reputable English which almost everyone uses in familiar conversation: *watch out for*, *up to you*, and so forth. Current slang, the words and phrases which are the fad of the moment, you are not likely to introduce into an article which you have taken seriously, any more than you are likely to wear a football sweater to a dinner dance. Colloquial expressions, however, may seem at first thought to be on a somewhat different footing. We have been urging you to avoid words that are big and strange, to use words that are simple and vigorous. Why

not use, then, these colloquial expressions that everyone employs in conversation? Well, if you will listen to the way people do actually talk when they are trying to express themselves *accurately* on any matter of importance—the sort of talk that is equivalent to the writing on which you are now engaged—you will discover that they use colloquial expressions only with caution and only for certain definite effects. This is not because of fussiness or pedantry but because colloquial phrases are not always appropriate or exact. When you are anxious to express yourself effectively on a serious subject, you strike for force and accuracy, just as you stand straighter and speak more sharply. If, in writing on your subject you express your ideas in the careless language of casual talk, you will be in danger of giving your readers the impression that your thought is also careless and unmeditated.

The words that will come to your readers with the greatest force, with which you will run the least risk of misleading or displeasing them, are the plain, familiar terms of standard English that are associated with family and home life and business and social relationships. These words you and your readers alike have known since childhood. In seeking words that have color and liveliness, look for them in the common stock with which all of us do most of our thinking. There you are most likely to find words that

suggest sensation and movement to the imagination of your reader.

Make sure that you have not used more words than you need.

Make sure that your nouns and verbs function precisely and vigorously, and cut out superfluous adjectives and adverbs.

Make sure that your words are simple and direct, not pretentious, too technical, or loosely colloquial.

III

If we regard each word as a distinct unit, contributing its part toward building up the idea in the reader's mind, we must allow for the sequence of these little units, as well as for the character of each one taken individually. If you wish to use words in interesting and significant ways, you must therefore feel them as motion, as a sort of nervous excitement, as a kind of dance; you must be able to suggest, in your writing, the swing and cadence of your speech.

The *cadence* or *swing* of words is something you cannot feel by merely seeing words. Nowadays we do a great deal of rapid eye-reading. We skim newspapers, we skim magazines, and even books. Read sometimes with your ear. Read your essay over aloud and try to catch the movement of your sentences. Do they roll or dance or march or leap, now the

one and now the other? Or do they just plod on monotonously, sometimes piling up on each other and sometimes perhaps stumbling, halting and going lame? If the latter is the case, see what you can do to steady or quicken or vary their movement.

There are two things you can do to this end. The swing of a sentence depends partly on its length and partly on the placing of individual words.

Long sentences are often useful to express complicated ideas with subtle connections. They are also useful to suggest an accumulation of details. A long sentence can roll by with a certain dignity and importance, or it can soar and bear down with weight upon a point you wish to press home to the reader. But a long sentence can also trail weakly along, wobble and limp and get tangled up in its own involutions. It may be long merely because, failing to find the right words, you have used a great many words that are not quite right. Short sentences are useful to express ideas plainly, directly, vigorously. You are generally safe in resorting to them if you need to be clear and emphatic. You can be positive with them. You can make them snap. You can hammer them home. But short sentences can also become choppy and monotonous. Too many short sentences may produce a disjointed or jerky effect. If long sentences can make you sound long-winded, short sentences can make you seem feeble and out of breath.

The effect of both long and short sentences, but especially of long ones, depends largely on the placing of the parts, especially of words important for their meaning. The most conspicuous positions are the beginning and the end. In every clause or sentence, certain words are more essential than others. As a rule these key-words should not be buried in the middle of the sentence. Neither should they appear as adjectives or adverbs or other parts of modifiers.

If a sentence sounds feeble, therefore, see that one of the key-words appears near the beginning as the subject of the main verb. See also that another appears near the end as the verb or as an important part of the predicate. If you do this, the natural impulse to stress the beginning and end will correspond with the other natural impulse to stress the words of important meaning. Long sentences especially can often be still further improved by being made periodic, that is, so constructed that the reader must go on to the very last word in order to get any complete meaning at all. Another means of strengthening the movement of a sentence as well as of clarifying the sense is to break up or cast out the strings of little words of petty significance and feeble stress, the superfluous *so's*, *and's*, *but's*, *however's*, *there is's it is's* and so on. The impersonal *It is* construction, as in *It is the style which is the man* where you might say *The style is the man*, weakens the meaning of

sentences when used too freely. The same is true of the too frequent use of the passive.

Several sentences or clauses made to move in the same way often add interest to the style. If the ideas are parallel, you may indeed weaken the force of what you say unless you maintain a balanced or parallel sentence pattern and rhythm. *If—, if—, and if,—*, we say, *then so and so will result.* Or we balance with *on the one hand* and *on the other* two clauses in which the principal parts occupy relatively the same positions.

Sensitive observation of the movement of sentences will suggest to you many similar devices which you can easily utilize. The sum of our advice in the matter is this. For most writers most of the time the best plan is to vary the length of sentences, to put important words into important positions, to vary the movement by the use of sentence patterns like the periodic or balanced sentence, and to avoid the use of too many petty words and weak passives. For the improvement of your style, listen sharply to the sound of your sentences as they follow one after the other. If they have a good swing, leave them alone. If not, you may be able to make them step more surely by looking out for some of the matters affecting cadence which we have mentioned.

Make sure of the cadence of your sentences.

CHAPTER XIV

THE FINAL COPY

I

When you have completed the revision of your article, you will be ready to make the final copy; that is, you will be ready to prepare a manuscript which will give your article a suitable physical form, one your reader will find attractive and convenient.

If you have followed the advice given you in earlier chapters, your draft will be cluttered up with the chips and shavings of your work. It will be crossed and recrossed, blotted and reblotted. We have urged you while writing not to bother about the appearance of this preliminary draft but to put your attention upon your subject, upon the sequence of your ideas and upon the order and meaning of your sentences and words. You have done this. You have said to the best of your ability what you have to say, and you have trimmed and polished your statements until you are satisfied that you have done your best. It is now time to clean up and show the finished product. Rehearsals are over, now for the performance itself.

The physical form of your manuscript becomes at this moment all important. Though up to this point you have cared nothing about its dress, think now about nothing else. Let no detail escape you. Make your manuscript as attractive to your reader's eye as you know how to make it.

Attention to such matters is not mere fastidiousness or fussiness. There is a pressing reason why you should take pains. All the work you have done—all your reading, all your taking of notes, all your seeing for yourself, all your arranging of your material, all your trimming and polishing—everything, in fact, that has occupied your mind and your time for these weeks, will reach your reader only through the final copy which you are now preparing. If he cannot read it, or if he is annoyed or repelled by the form in which it meets his gaze, all your labor will count for little. If your reader were anyone but your instructor, it would probably count for nothing at all. Even your instructor, remember, is under no obligation to ruin his eyes for your sake or to spend half an evening trying to decipher an article which he should be able to read in half an hour. You will serve your own ends if you see to it that your manuscript is not only legible and convenient but even positively pleasing in its appearance.

Attractiveness is always a matter of convention, of custom. What passes for attractiveness varies from

place to place and from generation to generation. There is no fixed, unchanging, and unchangeable standard of beauty. Among any group of people, however, there is, at a given time, a general consensus of opinion that one form or another is to be preferred. So with the preparation of manuscript. You had better stick to the conventions which have come to be generally used in our day. Practically every publisher issues a style sheet in which he indicates the usages preferred by his house. In the same way your instructor may explain the forms which he wishes you to follow. Since you want him not only to understand but also to enjoy what you have written, you had better follow carefully the instructions he gives.

While publishers and instructors differ about matters of detail, they seldom differ about essentials. Certain standards have been fixed by experience because they have been found to be useful, and these standards are observed by practically all persons who wish to convey their ideas effectively to others. However novel your attitude toward your subject may be, don't try to be unconventional in the form of your manuscript. The *Atlantic Monthly*, for instance, is a long established, conservative, and respectable magazine. The *American Mercury*, on the other hand, is a radical, iconoclastic, vivid and even gaudy publication which feeds upon the present and takes a gamble with

the future. Yet in the appearance of their printed pages, both follow the same general conventions. The publishers of both magazines know that unless they follow the conventions of appearance to which the public is accustomed, their readers will not be able to read their pages. So with your own case. You cannot afford to ignore the conventions of appearance as they apply to typed or long-hand manuscript, however novel your ideas may be.

Prepare your final copy for the printer in the form approved by convention.

II

Have you ever seen any of the illuminated manuscripts of the fifteenth century, manuscripts in which every detail is a thing of beauty and in which the just proportion of every folio is a delight to the eye? Every word and every picture stands out on the pages as if they had been carved in marble. Those who prepared these manuscripts sought to make the act of reading an ease and a delight. But do not suppose that in our day of printed books the art of making fine manuscripts is no longer practiced. If you were to examine the typewritten report for a client prepared by a firm of lawyers, engineers or accountants, or by an advertising agency, you would find the same painstaking care for convenience and beauty in the

appearance of the page. It will be to your advantage to pay no less attention to the form of the work by which you expect to be judged.

You can secure attractiveness in your manuscript by studying the "layout" of your pages, by ordering the material on each page so that it is properly balanced and effectively framed against the clear white sheets.

To begin with, don't huddle the title at the top of the title page. Block out carefully the elements you wish to include: the title you have chosen; your name, as author; and whatever information about yourself may be necessary to identify you—probably the official characterization of the course you are taking and the number of your section. Arrange them so that the page is neither top-heavy nor lop-sided. Space them so that the beginning and end of the lines are equidistant from each side. Carry the title over two or even three lines, if necessary, in order to harmonize it with your name and whatever designation you use. Capitalize the principal words. Some people underline all the words, but you are free in this to do what you wish. With a little artistic skill you can make your title page an ingratiating invitation. The very look of the page ought to make your instructor say, "Now I should like to read that."

When you turn to the text of your article itself, still keep in mind this matter of "layout." Block off

your material—in this case not only your paragraphs and your sentences but also any illustrations or diagrams you are using—so that they are symmetrically and attractively framed in your pages. Whether you write your copy in long-hand or on the typewriter, the written matter on each page should be carefully *massed* according to the following directions.

If you write in long-hand, use ordinary ruled paper 8½ x 11 inches, with a margin at the left-hand side. In this case you will begin on the first line, and except where it is necessary to indent, you will follow the margin at the left. You will find it desirable also to adjust your margins at the right and at the bottom of the page to those which you have thus established. Custom fixes a margin of a little less than an inch at the right-hand side and at least a line at the bottom. When the last ruled line is less than a full space from the bottom, it is never used. Each page of your manuscript will be "framed," as is a page of print, in a well-balanced margin of white paper. If you find it necessary to indent where you would actually round off the page, you had better start a new paragraph on the next page in order that your reader may have the whole paragraph before him. In general, this is the "layout" fixed by custom for every page written by hand.

If you type your manuscript, the "layout" of your pages will differ from that explained above only in

details. The "frame" will be essentially the same. Since you will use unruled paper, however, you will be able to mass your materials more exactly. For this reason the careful massing of typed material has come to be accepted as a matter of course. Today a reader expects a typed manuscript to be arranged according to the recognized standard of attractiveness, a standard as high in its own way as that set by the old monks who illuminated the monumental pages of the fifteenth century. If you wish to satisfy your reader, therefore, don't forget that this is his standard too.

Success in massing depends largely on the maintenance of a uniform space for paragraph indentation and a regular margin at the right-hand side of the page. When you use a typewriter it is easy to regulate margins. The task of making your lines of uniform length can be achieved in writing by spacing your words and in the case of both writing and typing by breaking up the longer words at the end of lines. So far as possible such breaks should be avoided, but now and then you will have to make them.

Words of one syllable are, of course, never divided. In the case of longer words, prefixes and suffixes may generally be separated from the main body of the word. In other cases the division comes between syllables, and a hyphen is inserted at the end of the line when the word is broken. It is to be remembered that in English each syllable of a word, after the first,

generally begins with a consonant. Attention to this matter will aid materially in making up an attractive "layout."

In all probability, especially if you have gathered much of your material outside of books, you will have to consider the arrangement on the page of photographs and diagrams of all kinds, and even manufactured materials like cloth or leather, and agricultural products like flax or cotton. If your subject is the Philadelphia merchant in the American Revolution, you may want to include a print of your great-great-grandfather. If it is the cathedral as an architectural type, you may find it essential to use a drawing to indicate the relationship to one another of the fundamental parts. If it is your father's factory, a bit of raw cotton and a strip of finished cloth may do what no words of yours can do. If it is the cultivation of bright leaf tobacco, a leaf before curing and another after curing will make your readers see for themselves. Exhibits of this kind should be placed so that they will fit in with the "layout" of the page.

Whatever you wish to include, therefore, photograph, diagram or anything else, put it where it fits well into the page. Separate it sufficiently from your text, and center it with an equal space above and below. Take care, too, that such illustrative materials are properly attached to the part of your article which

they are intended to illustrate. Sometimes they can be framed into a paragraph, more often they have to be placed between paragraphs, but they should never be separated from the passages which refer to them.

In placing these illustrations take into account whatever explanatory material is required to relate them to the text. Usually some kind of title, judiciously spaced above or below the illustration, is employed to indicate its character and significance. Further information, placed below in such a way as to balance the title, is often necessary. In the case of a photograph, this may include such matters as the date on which and the point from which it was taken. In the case of a diagram the designation of the various parts, by means of letters repeated from the drawing, is an essential element. Similar information is often added when other kinds of illustrations are used. As a rule this is cast in the form of phrases rather than complete sentences. In any event such explanatory matter should be blocked off so that it harmonizes with the general layout of the page.

When you have completed these requirements and numbered your pages, usually by means of arabic numerals in the upper right hand corner, you will have attended to the primary essentials of manuscript "layout." In all probability, by the use of taste and ingenuity, you will have given some personal charm to your pages. You have even created something like

a work of art. At any rate you will have made a manuscript which can be conveniently handled and read.

Plan carefully the layout of your manuscript, giving special attention to the arrangement of the material on the page.

III

What has been said covers the most important matters connected with the "layout" of your manuscript, and if you follow this advice, your final copy should be agreeable to the eye. There are, however, certain usages with respect to the form of the material within the text itself which you should not ignore.

Italics, while they do not affect materially the larger question of layout, are nevertheless important. Titles of books and magazines, for instance, as well as foreign words and phrases, are usually written in italics. Failure to do so is therefore generally regarded as a sign of ignorance. In other cases, as for example the italicizing of words for emphasis, custom permits considerable latitude. Remember, however, that for emphasis italics should be used sparingly. Unless you are careful you will clutter up your pages to such an extent that even if your general "layout" is attractive, your manuscript will appear uncouth.

Then there is the matter of spelling. Disregard of current usage in the spelling of words, while it will

not affect the general appearance of the page, is certain to repel your reader. Your instructor will very naturally expect you to have a courteous regard for the habits and tastes of your public, and to be decently correct in whatever you do. If you find, therefore, that you are uncertain about current usage, ask him to suggest a book that will help you. Most of your errors, you will discover, are due to the violation of a few elementary principles which you can easily learn to apply. Lean heavily on these principles; and if you are still uncertain in specific cases, consult the dictionary recommended by your instructor.

Capitalization is another matter to be considered. It affects the appearance of the page much as the use of italics does. In certain instances—the beginning of a sentence, of a complete statement in prose or of a line in poetry—the first word is always capitalized. Proper names and adjectives derived from proper names are also written with capitals. These conventions are fixed. Since they have been found useful as a guide to the eye, they are not likely to be altered unless a more convenient device than capitalization is discovered. In other cases of capitalization, however, use your own judgment, but since undue use of capitals, like undue use of italics, clutters up the page, don't employ them except when necessary.

In representing numbers, you will have even more leeway. Though certain tendencies are almost con-

ventions, they are far from absolute, and you may do much as you please. It is true that where numbers are written out, as in "twenty-one," hyphens are used to link the numbers not joined by "and." What numbers should be written out, however, is largely a matter of individual preference. Some publishers follow one plan, some another. More often than not, it may be said, numbers containing only two elements are written out in continuous discourse if there are no other numbers on the page. Where the treatment is statistical or mathematical, figures are invariably employed. The important thing is to have a scheme and to stick to it.

None of these matters affect the content of the text. Whatever changes you make, it remains in substance what it was. Nothing is added, nothing subtracted. In all probability, however, you will have to annex certain extra matters at various points. When a writer quotes exactly the words of someone else, or makes an assertion which his readers may wish to verify, he is under obligation to direct them to the source which he has used. You must follow this custom. As you make your final copy, therefore, watch for quotations and statements that may perhaps be questioned or challenged.

The sources may be indicated in one of two ways. You may, if you wish, put the reference in brackets after the quotation or statement to which it applies.

If there are only two or three such references, and they are all fairly short, this plan is not unsatisfactory. It must be used cautiously, however, because it tends to interrupt the continuity of the writer's thought. Except in special cases, footnotes are preferable.

As the term indicates, footnotes may contain not only an indication of the source of the quotation or information introduced into the text but also whatever supplementary material may seem desirable. In each case reference is made by placing a small arabic number, sometimes enclosed in brackets, after and above the last word in the quotation or the key-word in the statement, and by repeating this number in the same form before and above the first word in the footnote. Whatever else it includes, a footnote should always include the name of the author of the book or article to which the reader is directed, the title of the book or article and the page or pages covered by the reference. For such bibliographical data various abbreviations are employed. The most commonly used are "p." and "pp." for "page" and "pages." Other information is often given in the form of phrases rather than sentences, though here again you may do as you please.

The fact that you may do as you please may get you into trouble. Because footnotes always look learned, you may be tempted to use too many of

them. Whenever you are moved to add another, ask yourself, therefore, whether it is essential. In the case of quotations, you have, of course, little choice, but in other instances you can often twist things around to make your point without saying in a footnote what you should probably have said in the text. When you do have to use footnotes, take pains to verify your references. Never leave anything to conjecture. Examine your notes and compare what you have written with what you find in the original. This is your last chance for accuracy.

When the text is done, there remains only the bibliography to be added at the end. Turn back to your bibliographical cards and make up your list from them. Don't include all the references you have accumulated but only those you have actually used. It is easy to make a parade of learning by drawing up a long bibliography, but no one, least of all your instructor, is likely to be taken in by it. Sort your cards carefully, therefore, and make the necessary entries in alphabetical order according to the forms explained in Chapter III. If it seems advisable, add a brief critical comment on each book and article. In doing this, don't forget what you have learned about the "layout" of the page. Begin a new page, head it "Bibliography," and block off the entries according to a definite plan. Arrange the page so that each entry can be seen quickly.

When the last entry is made in your bibliography, the final copy will be complete; and unless your instructor directs otherwise, clip the sheets together and hand them in unfolded. If you have done your best, you will have no reason to be ashamed of the result.

Study such matters of form as the use of italics, spelling, capitalization and the representation of numbers and make whatever changes are necessary.

Add footnotes, if needed, and a bibliography. Complete the final copy and hand it to your instructor.

CHAPTER XV

PASSING JUDGMENT

At last your article is done and the final copy has gone in. Since you have prepared it for a special public, you will naturally want to know what they think of it. Your instructor will read it, and he will also, if it is satisfactory, arrange to have it read by several members of your class. You will therefore be able to get their opinion of it. They will tell you *what* and *how well* you have written. They will review and they will judge what you have done. In your turn you will do the same with the work of others.

Since you have now become a critic, you should know what criticism is. If your instructor should ask you to criticize a story by Stevenson, *The Merry Men*, for instance, or a poem like *Cargoes* by Masefield, you would probably say, "How do you expect me to find anything wrong with the work of a master like Stevenson or Masefield?" Now, of course, you would not be sincere in asking this question because you would undoubtedly find something at least that does not suit you. You may not enjoy the double-headed effect of *The Merry Men*, and you may miss the swing of *Sea Fever* in *Cargoes*. Back of your ques-

tion lies a common misapprehension. It is difficult for any of us to get rid of the notion that it is the business of the critic to find fault. A good critic, you take it, is one who can knock a writer into a cocked hat; and since many a critic has attempted to do exactly this thing, there is some ground for your assumption. The best criticism is not fault-finding. It is, in the first place, an honest effort to understand a piece of work by someone else and then to explain it to others. Just as you planned what you wanted to say in the article you have written, so every workman, whatever his tools, determines beforehand what he wishes to do. It is the business of the critic, therefore, to discover what an artist or an author has tried to do, and then decide whether he has done it, to make certain of what the author intended, and then see whether he has carried out his intention.

Criticism, however, is not only an attempt to understand and to explain. It is, in the second place, a weighing or a testing, an estimate of the thing done, be it poem or statue, bridge or automobile, in relation to a standard set by the critic. Were you ever on a fishing trip in Ontario or Quebec beyond the end of steel? If so, you probably recall bumping along over the roads that led to the lake shore where you planned to camp. When you inquired about them, you were told that they were good; and they are, as you learned later to your discomfort, better than

most others in the North Country. To you, however, accustomed only to the roads of Florida or Pennsylvania, they seemed little short of impassable. This is to say that most judgment is comparative. We are accustomed to expect that a road or a poem or an essay will do certain things for us. If it satisfies our expectations, we pronounce it good. But when we seek to express how well or how badly a thing is done, we fall back upon comparison. This road is better to drive on than that. This poem or this essay does its work better than that.

In this case the basis for your estimate will be the work of other members of your class. Though Arnold and Pater, Cohen and Lardner, may be able to teach you much of value about writing, you will feel rather awkward in their company. Stick to your own. See what your friends have done. In this way you will be able to determine whether your own article reaches the mark set by your public. Indeed, the best way to profit from the judgment passed upon your own work by those who will be asked to consider it is to judge the work of others like yourself. The final thing which you should do in this course, therefore, is to read and criticize some of the papers which have been submitted to your instructor. Read them as you would like your own to be read, and prepare a review that covers all essential points.

"But," you may say, "I can tell what I like or dislike, but I cannot criticize anything." What you mean, if you say this, is that you have preferences which you have not learned to understand or to explain. Since you have no clear idea why one thing is better than another, you often make a choice only to find a little later that you have chosen the wrong thing or that somebody much better informed regards it as not quite so good as you thought. You are like a person who admires his friends so much that he refuses to see them as they are and consequently is always being disappointed by them. Since criticism is merely the expression of personal taste, it is, of course, true that you cannot help being a critic every time you say you like one thing, whatever it is—a dance, a play, a car—better than another. You can, however, learn to understand your preferences, to be an intelligent critic instead of an unintelligent one.

One look at the manuscripts handed to you by your instructor will be enough to start you on this process of comparison and preference. At first glance you will instinctively favor the manuscript which is most attractively laid out and most conveniently arranged. Though you may be disappointed with the contents when you read it, you will naturally be more receptive towards this paper than towards the others. This one is better in a particular way that

you can name and describe. The hand-writing, it may be, is better spaced, better disposed on the page; the typing better aligned, better massed. As soon as you notice these facts, you have begun to establish a preference. You have become a critic.

The physical form of a manuscript is, of course, relatively unimportant, as compared with the author's treatment of his subject. Nevertheless, criticism of the essential features of the papers assigned to you must proceed in exactly the same manner. When you read them, you will inevitably prefer one to the others. You will prefer this one because it is superior in a particular aspect which you can name and describe. Obviously, therefore, the next step is to discover in what respect the work with which you are concerned is better or worse than the others. How can you find out what is good or what is bad in this specific essay?

One thing that you should not do is to abandon yourself to your emotions. It is true that as soon as you begin to read you will be repelled or attracted, as the case may be. You will be bored or pleased or antagonized or inspired or disgusted or amused. Don't throw down the article, however, without more ado and burst into an ill-considered eulogy or go off at half-cock against the unfortunate author. As a matter of practice it is well never to begin a criticism by heaping up adjectives. Don't start

by saying that the paper is interesting, or that it is difficult to understand. Either statement may be true, but it has little to do with your estimate. Your readers will want to know what is interesting or difficult and why you have found it interesting or difficult. When you have answered these questions, then you may let yourself go in praise or dispraise of the essay as a whole.

The way by which to arrive at a satisfactory answer to these questions should be plain. The proof of the pudding is the eating. The author has planned to say a certain thing (see Chapter VIII), to use certain material and to seek a certain effect. What has he said? What material has he used? What effect has he achieved? What is his aim, what is his method, what is his result? Begin your criticism by answering these questions as clearly, as skillfully, and as graciously as you can. The author has a right to the proof that you have tried to understand him. As a critic you have a right to demand that he meet the test you have undertaken. If he cannot do so, you will know better how to rate his work. On the other hand, if you bungle the test, your readers will know better how to rate you as a critic.

When you have once grasped what your author has tried to say, you will be prepared to consider the material which he has used. Is it sufficient? Has he left something out? Has he missed a step?

Has he run off the track altogether? Do his facts support his ideas? Do they lead to the conclusions which he has tried to establish? Only by answering each of these questions can you make sure that the author has mastered his subject.

Even though he knows his subject, you may nevertheless feel that his work is in some way less interesting or less effective than you would like. If so, the difficulty is probably due to his method of presentation. For this reason you had better see how he has managed his material. He may not have introduced enough illustrations. He may not have provided sufficient transitions from paragraph to paragraph. His sentences may be too short and choppy or too long and complicated. His vocabulary may be inadequate. Something, at any rate, is wrong. Try, therefore, to determine what particular weakness in handling these matters has prevented him from developing his theme more pleasantly and more compellingly. Needless to say, the author may on the contrary have been unusually successful, and you will then enjoy the opportunity of pointing out the secret of his success.

If you are not satisfied that he has developed his theme clearly, or that his conception of the subject is entirely correct, you may, as a critic, take issue with him. In this case you should show him where he has failed to establish his contention or where he

has gone astray. If you can, you may also show him how his view should be narrowed or extended. While this is a matter which requires tact, it is the critic's prerogative to point out that something different should have been said on the subject or that a different scheme should have been adopted.

Let us illustrate briefly the manner in which, as a critic, you had better proceed. You may have been asked to read an article by a fellow student on the manufacture of paper from wood pulp. After reading it carefully to determine what he has planned to say, you decide, though not without hesitation, that he is trying to show how the spruce forests of New England and Canada are converted into the paper used by American publishers, and that he has drawn his material partly from recent authorities and partly from his personal experience as a laborer in an Ontario lumber camp. So far, so good. His aim, apparently, is to offer a clear matter-of-fact explanation of the processes by which pulp-wood is converted into paper. Nevertheless, though his purpose is fairly, though not insistently obvious, his article leaves you confused and uncertain. Why is it so ineffective? One reason may be that the author constantly interrupts his exposition of the process of paper making in order to talk about the evil effects of deforestation, to bewail the general destruction of natural resources and to stir up your indignation against the

conversion of beautiful spruce trees into cheap newspapers. This, of course, is a laudable object, and the whole essay might have been written with this end in view. In this instance, however, all these asides are entirely out of place. Through your analysis, therefore, you have discovered that the main difficulty is that the author has not kept before his readers what he principally desired to say; and you will naturally begin your criticism by pointing out this confusion.

The next article, on the colonial merchant in the American Revolution, you may find to be much clearer in setting forth its principal idea, namely, that the Revolution was caused in part by commercial rivalry between the colonies and the mother country. The author's purpose was evidently to present a dispassionate, impartial view of the facts. Unfortunately, however, you find that his treatment is so dispassionate and so impartial that he is dull and tiresome. Though he seems to have had access to interesting contemporary material, he has seldom drawn upon it; and when he has used it, he has not used it to advantage. Instead, he has crowded his pages with statistical tables and long abstract terms. As a result, you lay down his paper with a sense of relief.

In this way you will proceed to compare one article with another. What does each author say about

his subject? What material does each use and for what purpose does he use it? How does each present what he has to say? What do you think of the subject as each presents it? When you have answered these questions concerning each paper you are reviewing, you will be prepared to pass judgment. This author satisfies all your demands; this one succeeds brilliantly in some respects and fails miserably in others; and this one—but let us hope not—falls short in all. In each case let the author have an exact account of your reckoning.

Should you never tell him whether you like his work or whether you dislike it? Should you put your emotions aside altogether? Since the author is human, he will probably be ready to risk the chance of an unfavorable verdict in the hope of securing a favorable one. If he is wise, however, he will care more about the reason for your feeling than he will about the feeling itself. It will be more useful to him to know that you approve or disapprove of such and such ideas than to get merely your praise or your blame. But when you have made sure that, in spite of the way in which he has repelled or attracted you by his attitude, you have given him a fair hearing and tried your best for your own sake as well as for his to understand what he has attempted to say, don't hesitate to congratulate him, or to tell him as generously as you can that you detest his point of view.

If you do, you have a right to expect that those who have been asked to review your own article will be as honest with your work as you have been with theirs.

When you have done all this, you will have completed, as well as you can, the full experience of the writer. You have followed the prompting of your curiosity to explore a particular subject. You have mastered some part of that subject and have made up your mind what to think of it. You have set down just what you think, in a piece of writing which you have tried to make as convenient as possible for a reader to handle and as easy as possible for him to understand and to enjoy. He has read it, and he has told you how much of it he understands and how well he is satisfied with it. Thus you have rounded out the full cycle of the writer's craft. You have shod your first horse, and what you have done once you can do again. The authors of this book on the art of writing now conclude with the wish that you may always be able to say what you want and to say it in the way you desire!

Read and criticize the manuscripts of other members of your class.

W. 411b

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